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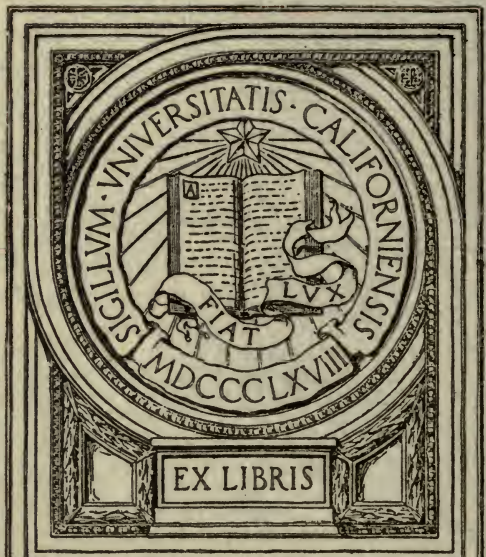
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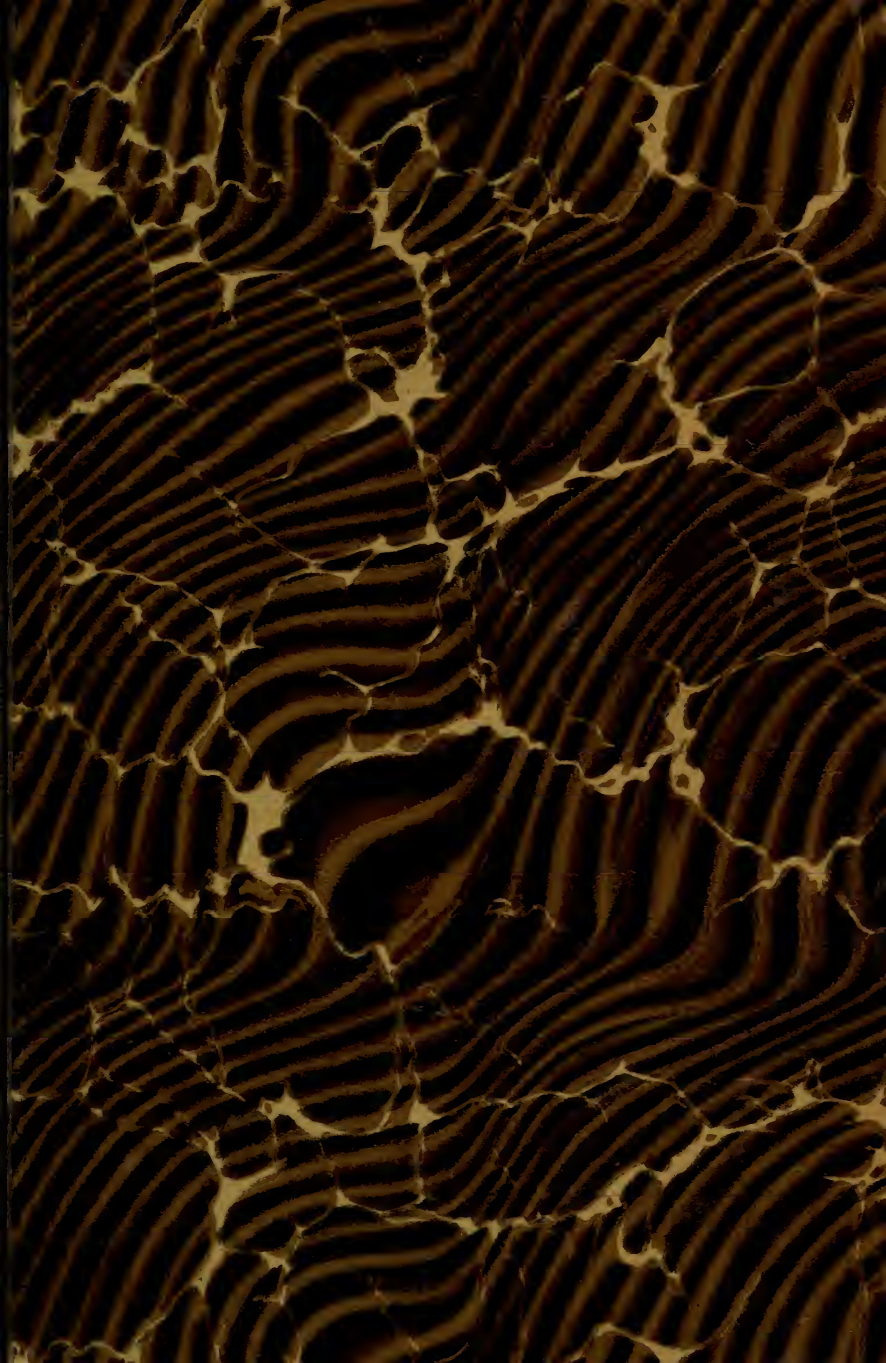

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TRUST FINANCE

A STUDY OF THE GENESIS, ORGANIZATION, AND MANAGEMENT OF INDUSTRIAL COMBINATIONS

BY

EDWARD SHERWOOD MEADE, PH. D.

WHARTON SCHOOL OF FINANCE AND ECONOMY
UNIVERSITY OF PENNSYLVANIA

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PREFACE

Recent discussions of the trust question have shown the existence among persons of every shade of opinion of a conviction that serious blunders have been made in the organization and financial management of many industrial combinations, and that the result of these blunders is a condition of overcapitalization which is a menace to general business security. Opinions may differ as to the evils of monopoly prices, and the undue advantages in competition which are alleged to have arisen out of the combination movement, but, apparently, there is a general assent to the proposition that there is in the United States a large mass of speculative securities behind which is no guarantee of earning power sufficient to maintain their value under ordinary fluctuations of business prosperity. This condition, it is held, involves serious danger to every legitimate business interest. It is proposed in this volume to examine the grounds upon which this opinion is based, and to determine whether or not it is warranted by the known facts of trust capitalization and management.

The financial aspect of the trust question may be analyzed as follows:

1. The methods employed in the promotion and financing of the trust.
2. The method of its financial management.
3. The basis and justification of its capitalization.

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Along the lines of this general outline it is proposed to show (1) the nature of the competitive situation out of which the trust arose; the motives to which the trust promoter appealed in assembling his proposition; the assistance rendered by the underwriter, and the methods employed to sell the trust stocks to the public; (2) to discuss the adequacy of the amounts which the new companies have reserved for extensions and betterments out of the large profits of the last four years, and the methods which they have employed to obtain new capital; (3) to inquire into the legitimacy of the capitalization of the trusts by reference to the prices of their securities and to estimate their ability to endure without disaster a period of commercial depression. On the basis of this discussion, it is finally attempted to show the consequences to the public of the form of financial activity which is exemplified by the trust, and to estimate the nature of measures of regulation, should some form of regulation appear to be necessary.

The materials of this investigation have been taken from legislative investigations, the various trade and financial journals, such as the Iron Age, the Commercial and Financial Chronicle, and the Wall Street Journal, and the reports of railway and industrial corporations. A sufficient number of references have been given to enable the reader to verify statements which may be called in question. Acknowledgment is due the editors of the Quarterly Journal of Economics for permission to republish the substance of two papers on the United States Steel Corporation, which originally appeared in that journal. The writer also desires to make acknowledgment of assistance and criticism received from the following: Mr. F. A. Vanderlip, Mr. Benjamin Loeb, of Sutro Brothers & Co., New York; Mr. Thomas F. Woodlock, editor of the Wall Street Journal; Mr. Thomas L. Greene, Vice-President of

the Audit Company of New York; Mr. Jeremiah J. Sullivan, President of the American Railways Company, and Dr. F. A. Cleveland, of the University of Pennsylvania. This acknowledgment should not be construed to mean an indorsement on the part of any of these gentlemen of the conclusions reached. The writer especially desires to acknowledge his indebtedness to his wife for assistance throughout the preparation of this volume.

PHILADELPHIA, *March 19, 1903.*

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TRUST FINANCE

CHAPTER I

INTRODUCTION

The Standard Oil Company was organized in 1885.* The second large combination was the American Sugar Refining Company, which was formed in 1887. With the organization of this combination, the trust movement may be said to have begun. It did not, however, assume immediate importance. It is true that the period immediately following the organization of the Sugar Trust was marked by a general outcry against monopoly, and that popular sentiment took form in numerous antitrust laws enacted by State Legislatures and in the drastic Sherman Act of 1890; but neither the number of companies formed, nor their aggregate capitalization and resources, gave any reason to suppose that the movement toward the uniting of manufacturing plants into large combinations would assume a more than limited importance.

Up to 1893, when the panic put a sudden stop to all kinds of company promotion, the securities of only twenty industrials of any importance had been listed on the New York Stock Exchange. Besides those already mentioned, the principal combinations were the National Lead and the Distilling and Cattle-Feeding Trusts, both organized in

* The American Cotton Oil and the National Linseed Oil Trusts, organized in 1884 and 1885, were of much less importance.

1887; the American Tobacco Company, in 1890; and the General Electric Company and the United States Rubber Company, in 1892. With the exception of the sugar, oil, and rubber trades, there was not even an approach to monopoly; only a few of the leading industries had been consolidated; and the total capital stock of all the manufacturing consolidations organized from 1860 to 1893, inclusive, was less than $1,000,000,000.

The real trust movement dates from 1898. Four years have sufficed to reorganize the leading industries of the United States along lines of consolidation. In three years, 1898–1900, one hundred and forty-nine large combinations, with a total capitalization of $3,128,650,000,* were formed. Hardly an industry has escaped consolidation. Coal-mining, iron and steel, copper, lead, zinc, and silver; paper, leather, rubber, salt, starch, chemicals, cordage, ice, glass, paving and roofing, practically all of the great industries whose product is used in further production, have been in large part consolidated.

The field of consumption goods—i. e., those products which are sold over the retail counter—has been scarcely less affected by the combination movement. In this field we have the oil and sugar companies already mentioned, the Standard Oil Company having been formed anew in 1899. We have beer, whisky, and tobacco produced by combinations. The United States Fruit Company, the National Biscuit Company, the Diamond Match Company, the American Woolen Company, the International Thread Company, the American Writing-Paper Company, the United States Flour-Milling Company, the International Silver Company, the American Bicycle Company, and the

* These figures are taken from the careful study of Industrial Consolidations in the United States, published for Mr. Luther Conant, Jr., in the quarterly publication of the American Statistical Association for March, 1901.

American Chicle Company have been organized to produce the necessities or the luxuries of the consumer.

The trust movement is apparently destined to spread over the entire field of production and distribution. The universality and spontaneity of the movement raise the question of its origin and cause.

The trust movement began with the close of the industrial depression which followed the panic of 1893, and which, as a matter of origin, can probably be traced to the panic caused by the failure of Baring Brothers, in 1890. During this period, the steady fall of prices and the slow-moving liquidation of credit had severely handled the manufacturers and merchants of the United States. The aggregate liabilities of failures in manufacturing and trading from 1894 to 1898 exceeded $725,000,000. Many of those who did not fail outright labored under heavy burdens of debt. Few men made large profits; almost every one had his scale of earnings greatly reduced. Manufacturers saw their plants deteriorate for lack of the money to keep them in repair. Bank clearings decreased, from 1892 to 1895, $8,000,000,000.

The securities market was especially depressed. An index number made up from the prices of ten leading railroad stocks shows a decline, from 1892 to 1896, of 31 per cent. Sales of stocks on the New York Stock Exchange, from 1892 to 1894, decreased 36,000,000 shares. New listings of stock on the New York Exchange from 1894 to 1896, compared with the period 1891 to 1894, decreased $100,000,000. Although the general depression throughout the country produced a large surplus of idle funds which flowed into the New York banks, the low interest rates resulting were powerless to excite public interest in speculation. The people were busy paying their debts. They had just experienced the penalties of optimism, and they were in no humor for risk taking. The Financial

Review of 1895 sums up the financial situation as follows: "The result of these hard times has been to make our own investors unusually cautious and to produce extreme wariness of American securities on the part of foreign capital. Under such conditions it could not be expected that the listings of stocks and bonds representing *new* enterprises would be heavy."

With the summer of 1897, recovery began. A large wheat-crop, sold at good prices, increased the earnings of the grain-carrying railroads and stimulated investment in their securities. From 1896 to 1897, the earnings of the five "Granger" roads running into Chicago increased $14,677,000. The effect of increased earnings was soon felt in the stock-market. During 1897, the prices of these Granger stocks increased as follows, the first quotation being the lowest price in January and the second the highest price realized during the year:

Atchison, Topeka & Santa Fé (preferred)....	22⅞ to 35½
Chicago, Burlington & Quincy.....	69⅜ to 102¼
Chicago, Milwaukee & St. Paul.....	72¾ to 102
Chicago & Northwestern.....	102¼ to 132½
Chicago, Rock Island & Pacific.....	65⅝ to 97¼

Other railroad stocks advanced in sympathy with the Grangers, the increase being as much as 20 points in the case of several roads, and reaching 29½ in Northern Pacific preferred. Under the stimulus of higher prices, the sales of stocks on the New York Exchange increased in one year 22,000,000 shares. The buying, however, was as yet almost wholly confined to old securities. Large amounts of low-priced reorganization securities were coming into the market, and the tempting bargains which these offered occupied the attention of investors; while the rapid rise in all railroad stocks furnished abundant opportunity for speculation.

The industrial revival gathered strength in 1898; an-

other large harvest and continued high prices increased Granger earnings $17,753,000 over the high figures of 1897, and these stocks continued to lift the entire market. Other industries also increased their output. From 1897 to 1898, for example, the production of pig iron increased 2,121,000 tons. Foreign trade was also favorable. During 1898, exports of merchandise exceeded imports by $615,000,000, and an importation of $104,000,000 of gold strengthened the basis of American credit. General business was stimulated by these favorable conditions. From 1896 to 1898, New York clearings increased $13,000,000,000. The rapid improvement of business united with the successful result of the Spanish War to inspire in all classes the most sanguine optimism. The people believed that good times and high prices had come to stay, and the national feeling found instant expression in the quotations of securities.

The first buying of stocks came from the investors who were attracted by the larger earnings of railroads to transfer their capital to more promising investments. A speculative demand for these securities set in at the same time, and large amounts were bought to sell at an advance. The profits, which were rapidly realized, attracted wide notice and the demand for stocks became general. The stock-market was the place where money was to be made. People of every class and condition caught the fever of speculation and were ready to buy. It was impossible to supply this demand for stocks from existing issues. Most of these were held for investment, and only small quantities came into the market. The time was ripe for the promotion of new enterprises. New companies were organized and their securities were readily sold.

This condition called the "promoter" to the front. It is the promoter who organizes new companies and places their prospects before the speculative and investing public.

His organizing energy usually, although not of necessity, follows the line of largest immediate advantage to the community. If there is an opportunity for new industries or new combinations of industries, the promoter organizes companies to take advantage of the opportunity. Noting the most promising outlets for industrial activity, he capitalizes the new opportunities and markets the securities while the public is in the humor for buying shares. If we go back to the early years of our industrial history, we find the promoter organizing banking and land companies. At a later period, railroad schemes were put on the market. Public-service corporations, mines, and street-railways have each had their share of attention. Whenever an opportunity is presented for the exploitation of new resources or new conditions, the promoter is on hand with his prospectuses and his propositions "to be submitted to the approval of the investing public."

Railroads had furnished the bulk of the new securities since the civil war, but in 1898 large amounts of low-priced railroad stocks were no longer available. The country had been well equipped with transportation facilities and few projects for new mileage were put forward. From 1886 to 1889, 28,177 miles of railroad were constructed; from 1896 to 1899 only 7,201 miles. From 1886 to 1889, $1,126,000,000 of railroad securities were issued. From 1896 to 1899, however, there was an increase of only $381,842 of railway stocks and bonds; most of these, moreover, being investment securities and selling at high prices.* The former outlet for investment had been closed, and a new one was now to be opened.

This outlet was furnished by the organization of the

* All of the foregoing figures are taken from the Financial Review, published by the Commercial and Financial Chronicle, except the figures of railway securities issued, which are taken from the United States Statistical Abstract.

industrials. Says the Financial Review of 1900 in its retrospect of 1899: "The extreme industrial activity engendered a feeling of great confidence, very propitious to the creation and multiplication of new industrial enterprises. Easy money in the early months, caused by a congestion of currency at this center, materially aided the movement. The result was the formation and flotation of industrial undertakings of enormous magnitude and in unparalleled numbers. In every industry, in every line and branch of trade, great consolidations and amalgamations were planned, and in most cases carried into effect. It was the great opportunity of the promoter, and he was not slow to avail himself of it. Seeing in any given trade a large number of separate businesses or manufactories, his effort was to merge them together in one large corporation, insuring partial or complete control, and giving at least the appearance of monopoly." The financiering and the financial conduct of these industrial combinations it is proposed to examine.

CHAPTER II

THE RÉGIME OF COMPETITION

The great distances which separate the centers of population in the United States, and the high transportation cost of supplying widely sundered markets, have brought about certain groupings of the chief manufacturing industries, the location of the groups being determined by the principal markets upon which these industries depend and the sources of their raw-material supplies. Especially does this concentration of manufacturing plants take place in those industries whose products are either heavy or bulky, or, in general, of low value in proportion to their weight. This principle applies most closely to the production of raw materials and partly manufactured products, the industries in which most of the new combinations have been formed.

The best illustration of this principle of the grouping of industry is offered by the location of the iron and steel plants of the United States. The grouping of plants in this industry is familiar. One group is located in New England, another in eastern Pennsylvania, another in the Pittsburg-Cleveland district, a fourth about Chicago, a fifth about St. Louis, and a sixth about Birmingham. Colorado and California have also developed iron and steel industries of some importance. In the Pittsburg-Cleveland and the Birmingham districts are to be found plants representa-

tive of the leading branches of the industry—blast-furnaces, steel plants, rolling-mills, wire and rod mills, bridge works, tin-plate mills, and, in general, all the manufacturing industries which get their raw material from the iron and steel industry. The subsidiary industries of the Pittsburg-Cleveland district are especially numerous, but it is only a question of a short time before Chicago and Birmingham will develop the branches in which they are now inferior to the East. Colorado is also rapidly perfecting a complete equipment for the manufacture of all kinds of iron and steel goods.

Worcester, Philadelphia, St. Louis, and San Francisco, on the other hand, whose location makes it impossible for them to produce crude iron and steel, buy their raw material in the form of pig iron and steel billets from the centers where ore can be most profitably reduced, and manufacture it into the finished form, gaining thereby an advantage in their local market over their competitors, who can indeed purchase their raw material at lower prices, but are handicapped by the higher freight charges or more highly finished products.

Other industries follow in their location the same principle. The points of largest advantage are those which lie nearest the desired market, and the industrial centers are therefore widely separated one from the other. If supplies of raw material are also easily available, such a location becomes of preeminent value. Proximity to the market, however, other things being equal, is usually the deciding factor in the location of manufacturing plants. This is illustrated by the Western movement of the boot and shoe industry, which brings the manufacturer nearer his Western market, and at the same time closer to his raw materials. We see it also in the location of the sugar-refining industry, which, though drawing its chief supply from foreign countries, has distributed its plants along

the Atlantic seaboard according to the location of the various markets, and has also acquired plants at New Orleans, St. Louis, and San Francisco, in order to get as close as possible to the buyer and to reduce to the lowest point the charges of transportation. There is, then, a division of the country into industrial centers, or groups of plants, which correspond to centers of population and supplies of raw material.

Within each industrial center, is usually found more than one plant representative of each industry; and between these rivals there exists an intense competition, which, unless previously settled by some combination agreement, results in the final victory of the strongest and best equipped. The losers in the contest are either crowded out altogether or take refuge in the production of some patented specialty. This rule applies particularly to industries, like that of iron and steel production, where large capitalization is necessary to cheap production. In the textile industries, where large capital is not so important, the process of consolidation is longer delayed; although even here a few large plants in every district are coming to monopolize the field, and it is only a question of time before these plants will decrease in number and increase in size by extermination of the weaker or by consolidation.

In the iron and steel industry, however, where more trusts have been organized than in any other, this movement toward consolidation has gone rapidly forward, and had already resulted before 1898 in the concentration of production in the hands of a few large firms or corporations, with a fair prospect that the weaker of these must either effect a combination with their stronger competitors or be exterminated. There were steel plants at Youngstown, Cleveland, and Wheeling, which had managed to thrive and grow in the immediate neighborhood

of the Carnegie Works at Pittsburg. But this development of outside plants had been largely by sufferance of the Carnegie Company, which had all the business it could handle without making an exterminating fight for the trade. It was seen to be only a question of time, however, before the Carnegie Company, owning its own mines, boats, railroads, and coal-fields, and equipped with the latest appliances for economical production, would come into conflict with its neighbors, who, unless they could gain similar advantages, which was unlikely, or unless they could effect some combination with the Carnegie Company, would drive them entirely out of the lines which it wished to control.

The ultimate outcome of this competition within industrial centers is usually the survival of a few strong concerns in each branch of industry. It is of course conceivable that the process of concentration should go so far as to locate the steel industry of the entire country at Pittsburg, and to concentrate other lines of production in the same way, each at the point most favorably situated, but present indications and past experience do not point to this result. There is a limit to the economical increase of capitalization within a single plant—and this limit is reached long before the capacity of supplying the entire market is attained; and there is also the factor of transportation charges operating to favor the dispersion of industry. This influence of freight rates becomes more important as all plants are tending to greater equality of advantage. Improvement in transportation, discriminating as it does against the more valuable finished product and in favor of the more bulky raw material, serves to emphasize the importance of this item of cost. It seems likely, therefore, that the dispersion of all manufacturing industries according to the location of markets is the ultimate goal of industrial development. The manufacturing of tobacco, meat prod-

ucts, and cotton goods has followed the lead of the iron and steel industry, and has been rapidly dispersed over new markets within recent years. There is little reason to expect a reversal of the process in the case of those industries whose location already conforms to widely sundered markets.

Within each industrial group, when local competition has worked out to its conclusion in the survival of the strongest, there tends to be a qualified monopoly, checked and controlled, however, by the competition of other centers. In the iron and steel industry, Colorado and Birmingham are so far distant from competing centers of industry that the restraints of intergroup competition are not much felt; but all other centers are near enough to each other to be influenced by the prices of the nearest competitors. Given equal equipment and facilities for production, each center will control the prices and most of the sales in its immediate market, providing that it does not raise them to such a point as to more than equal the differential advantage which its location gives. This, however, is an important restriction which, so long as competition between centers prevails, serves to hold prices the country over to a competitive level. The monopoly power of location is tempered by inequalities of advantage—the Carnegie Company, for example, influenced for many years the entire country—and shades off toward neutral territory until at all points economically equidistant from each other perfect competition prevails. Free competition, therefore, if allowed to work out to its ultimate conclusion, results in control of particular markets by a few concerns for the larger part of the sales made in that market, and in a near approach to competitive prices in all markets where outside selling is to be feared by local producers.

There are certain phases of the competitive struggle

which bear with especial severity upon the manufacturer. In all those industries which produce either the materials or the instruments of further production—steel, copper, coal, paper, glass, and cordage—the alternating seasons of prosperity and depression through which the United States is continually passing, appear in wide fluctuations of prices. In times of industrial depression, the productive capacity of mills engaged in turning out these so-called production goods exceeds the demand at profitable prices. When business revives, however, and advancing prices and profits encourage a large consumption of wealth, the requirements for the agencies of production—the machinery, the fuel, and the materials of industry—often run far beyond the capacity for producing these articles, which may have been reduced by the abandonment of non-paying mills and mines during the period of low prices.* No reorganization of production can prevent these wide fluctuations in prices and profits; but the competitive system, under which, until the beginning of the present combination era, industry was conducted, has operated to increase the losses of depression and lessen the profits of prosperity. Against the competitive system, on these counts, the producer could bring in a weighty indictment.

During a season of reduced demand, and in the absence of some agreement among sellers, the buyer, whose wants were likely to be much less urgent than when prices were rising, and who was therefore better able to defer his purchases than the seller to postpone his sales, could usually obtain large concessions from sellers—concessions which were by no means invariably reflected in market prices, and which even if they did not take the form of secret rebates—and this is where they were

* See Iron Age, September 7, 1899, Philadelphia Correspondence, for description of the situation of buyers in a rising market.

first to be looked for—amounted to the same thing to the buyer. The manufacturer might pay the freight for his customer; he might grant him net cash ninety—instead of thirty—days; he might allow him to cancel or modify orders if a change in the circumstances of the buyer's business made such rearrangement of contracts desirable; he might, if the order in question concerned, for example, special sizes or shapes of rolled iron, allow the buyer to disregard the card of extras which calls for additional payment for special work; he could allow the buyer a discount for storing the goods purchased in the buyer's wareroom; he could allow excessive claims for damages for work which was "not up to good merchantable quality"—in the buyer's opinion; in a great variety of ways he could make special concessions to secure desirable orders.

The dealings between the buyer and the competing sellers of merchandise during a period of depression are in no respect different from those which, in the absence of some regulation of competition, are carried on between the buyer and sellers of railway transportation. Not only is it found necessary to lower prices and rates, but also to grant to large buyers and shippers a great variety of special concessions and rebates which are not always nominated in the bond. The man with a large order has a great advantage over the seller. His less important competitor, on the other hand, must generally pay the market price. Conditions are so lax at such a time that buyers feel no compunction in supplying themselves at lower prices whenever they can, forcing those with whom they have contracts to beg for specifications unavailingly. The buyer has the seller in a tight grip and makes the most of his position of advantage. The large buyers, especially the railroad purchasing agents, by dint of long practise attain a perfection of skill in bargaining which bears rich fruit in every period of slack demand.

An excellent illustration of the shrewdness of the large buyer working under competitive conditions comes from the purchasing agent of a Western railroad. This man invited bids on a large order of brake-shoes, some 1,800 tons in all. Several salesmen waited upon him. Each one in turn was called into the purchasing agent's private office, which was separated by a glass partition from the "mourner's bench" on which the salesmen were waiting their turn, and from which vantage-point the conversation inside could sometimes be overheard. The first salesman bid $48 per ton, a price which the agent would have paid in the absence of competition. The next salesman, who had been listening attentively, bid $45. Salesman No. 3 was not very keen of ear and misunderstood this quotation to be $35 instead of $45, the figure actually named. On entering the inside office, without waiting for any cue from the buyer, he astonished that official by expressing his regret that he could not "beat" $35 for the order. The buyer took in the situation at a glance and urged the salesman, in view of the fact that the order in question was a very large one, to communicate with his principals and ascertain if he could not take the entire 1,800 tons at $34. This was done, and the order was placed at $34, $14 below the price which the purchasing agent was ready to pay had he not been able to force more favorable terms. This price represented a saving of $25,200 to the railroad, and a corresponding deduction from the profits which the manufacturer of brake-shoes would have secured had he not been compelled to bid against his competitors.

So much for the effect of competition in decreasing manufacturers' profits during a period of depression. This same depressing influence, when prosperity returned and demand again began to exceed supply, was exerted in favor of the large buyer. At such a time, the buyer,

before prices materially advanced, could, under the competitive *régime*, gain a decided advantage over the manufacturer by contracting ahead for large amounts of material to be delivered, in some cases, eighteen months from the date of the order. The system of contracting ahead for all kinds of crude and half-finished material, which large manufacturers—for example, of iron and steel—systematically employed, and the policy of jobbers in straining their credit on the approach of a period of active demand in order to fill up their warehouses with low-priced goods, left to the iron and steel producers the task of filling these orders on a low level of prices; while the general market, buoyed up by the urgent demands of late comers whose timidity had deterred them from large buying until too late to take advantage of a favorable opportunity, and who were willing to pay any price for material, soared far above them.*

This willingness of the producer to contract into the future was chiefly due to the fear that competitors would get the large amounts of business which far-sighted buyers offered him on condition of future delivery. He might have a firm conviction that prices were certain to advance, and that, by holding off, a higher price than the one offered might be secured. The coercive discipline of the competitive *régime*, however, was usually strong enough to fill his books with orders for serial deliveries. The manufacturer ran no risk of loss in undertaking this future delivery. He was generally able to contract ahead for his own materials, and a moderate profit was secure.† These

* Iron Age, January 4, 1900. Review of Hardware Trade for 1899. "At the beginning of the year, manufacturers in many lines had booked liberal, but not extraordinarily, heavy orders from the larger trade. Jobbers were very prompt to recognize the fact that prices were likely to go materially higher, and, accordingly, with the first indications of improvement, enlarged their orders and thus secured great quantities of goods."

† See Iron Age, March 16, 1899. Editorial.

profits, however, would have been much larger if the producer had worked on shorter contracts.

A further effect of this practise of contracting ahead was to establish an artificial price for all production goods, particularly for iron and steel products. The large consumers who were enjoying the benefits of their long contracts came in time to consider themselves entitled to these prices. It was only the late comers, as already remarked, that were forced to accept the famine prices caused by the urgency of their demand. On this account, when the contract commitments had been filled, and the manufacturer attempted to get new business at the new prices, the market became stagnant, and so continued until substantial concessions in prices were made. This irregularity of iron and steel prices exerted a demoralizing influence upon business.

A recent illustration of the instability of competitive prices is furnished by the course of the iron and steel market in 1899 and 1900. During 1898, the steady growth of general business enormously increased the demand for iron and steel and large orders were placed with every active mill. Following the practise of competition, the manufacturers, in their anxiety lest a competitor should get business away from them, accepted orders for delivery running in many cases to the close of the following year. In 1899, when the mills were loaded up with these low-priced orders, the imperative requirements of a relatively small number of buyers forced up prices to famine rates, which represented only a small fraction of the actual business done.

The Iron Age of July 13, 1899, describes the situation as follows:

"To a very large extent present values may be stated to be artificial and misleading. They represent small transactions for immediate delivery, the small overflow

of demand which makes the market, but really does not fairly reflect the prices at which the overwhelmingly large percentage of the tonnage is being delivered or is to be supplied for many months to come. For instance, steel billets are being quoted at $32 to $34. Yet material is still being shipped for which $16 is to be paid. We have reason to believe that none of the large works have really important contracts on their books above $25 per ton. To a certain degree the same is true of the whole line of crude and manufactured products. . . . The present nominal price of steel rails of $30 to $32 has nothing whatever to do with the current consumption, since the railroads are putting down $16, $17, and $18 rails and are getting very good prices for the old material they take up." *

Indeed, in many cases, when contracts for ore, pig iron, or billets had not been placed, these orders were filled at a loss. The iron and steel trade made money during 1898 and 1899, but its profits were far below what the margin between the prices of material and product would seem to indicate. A large part of the business did not pay the high prices, and, as was stated above, the profits realized came from orders which originated after the high prices were fairly on.

In 1898, to show the possibilities of loss and profit in these long contracts, a contract was made between the Morehouse & Wells Company, of Decatur, Ill., and the Laidlaw Bale Tie Company by which the latter agreed to furnish to the Morehouse & Wells Company all the baleties which that company would require for the year ending June 1, 1899. Before the delivery of any of this material, the Laidlaw Bale Tie Company sold out to the American Steel and Wire Company, which filled some of the contracts but afterward refused to fill any more, since, if it had done so, the Morehouse & Wells Company would,

* Iron Age, November 16, 1899.

for the time being, do the entire bale-tie business of the country.*

It is also to be noted in proof of the disadvantages to manufacturers of the fluctuating market which is so largely produced by competitive conditions, that when the decline begins, although the consumer has rigorously enforced the letter of his low-priced contracts, and has compelled the producer to give him the advantage of the rise in prices, he is often unwilling that the tables should be turned, and frequently refuses to accept goods for which he may have contracted at high prices. Various excuses are employed in such cases. Non-conformity with specifications is a common ground of protest. The buyer may also delay to furnish specifications; and, in some instances, all too numerous however, he has, without attempting to justify his action, flatly refused to receive the goods. "On a falling market it is proverbially difficult to make deliveries which conform to specifications, or are in any respect up to the accepted standard of 'good merchantable quality.' It is surprising how many excellent reasons can be found for refusing to accept deliveries which, thirty or sixty days before, were wanted so exigently that every shipment had to be followed by a tracer." †

The producer was helpless. Custom and law, except in extreme cases, such as that of the Laidlaw Bale Tie Company, for example, united to force from him a literal performance of his contract; but as to his customers' contracts, custom was silent, and law was therefore helpless. The producer could force his goods upon those who had agreed to purchase them, only after a lawsuit, the success of which is doubtful and the unpopularity great. The rule of *caveat emptor* in the iron and steel trades in a *régime*

* Iron Age, September 14, 1899, p. 19.
† Ibid., September 13, 1900, p. 19.

of competition should read *caveat vendor*, for it is upon the seller, not the buyer, that the risk of price fluctuations usually falls.

It must be admitted that there is a measure of equity, if not of legality, in the provisions of this unwritten law which often bears so heavily upon the producer. It may be argued that the filling of low-priced contracts on a rising market does not imply an actual loss to the producer, but merely a reduction of his possible profits; whereas, in a falling market, for the buyer to receive his high-priced consignments of material while the price of the product is rapidly falling, would mean an actual loss to his business. As between reduced profits and actual loss, the former is, and no doubt properly, more lightly considered. But this is beside the point that the producer has always much to gain and nothing to lose by any arrangement which will so shorten contracts as to make it possible for him to compel the buyer to pay the full market price for the goods purchased.*

Were competition to be eliminated, the producer would profit, not merely from a closer conformity of contract prices with market prices, but from a larger volume of business at the good prices. Extremes of high and low prices are alike unfavorable to the largest demand. Low prices can not stimulate much buying when general demand, the regulator of prices, has fallen off; and high prices are even more unfavorable, since there comes a time when immediate requirements are satisfied, and when the consumer entirely withdraws from the market until the

* Iron Age, September 6, 1900, p. 19: "It is a regrettable, but undeniable, fact that the majority of jobbers will not abide by a contract when it goes against them. . . . Practically the only way to enforce a contract is a determined insistence upon the part of the manufacturer, backed up by a lawsuit if necessary. Very few manufacturers will go to this extreme, generally refraining from motives of policy, and so the evil goes uncorrected."

producers are forced to make reductions in order to get any business at all.

During the spring and summer of 1900, the conditions which have been described prevailed. New enterprises were everywhere suspended, waiting for a break in the market. Producer and consumer could not get together on the level of high prices, and business was at a standstill. The contest could have but one result. Prices fell sharply; for steel billets, from a high point of $38.75 in October, 1889, to $16.50 in October, 1900, with a corresponding decline in other iron and steel products. The high prices of the first six months of 1900 did not represent the largest part of the business done, and when the contracts carried over from the preceding era of low prices had been filled, and the producers of iron and steel attempted to collect the new tariff from their large customers, they found that this was impossible. The large manufacturing consumers had not been educated to the new level of prices. They had been living on the proceeds of low-priced contracts. The retail buyer of hardware would not pay higher prices because the hardware jobbers, who had stocked up with low-priced goods, had seen no necessity for risking his trade by attempting to extort the excessive profits that prices based on the quotations for material which prevailed in 1899 would have yielded him. The entire buying public resented the attempt to lift them on to a new price level which would cut into their profits and derange their calculations. Buying finally revived, but not until six months of dulness and stagnation had shown the imperative necessity of concessions and the impossibility of bringing the general range of prices up to the abnormal level of the iron and steel markets.

The foregoing description of the course of events in the iron and steel industry under the *régime* of competition applies generally to the situation of every industry

which produces the materials or instruments of further production; and in a less degree, because in this class of products the intelligence and the waiting power of the buyer is much less than in the field of so-called "production goods," to the situation of those industries producing consumption goods which were sold to the final consumer. The influence of competition was everywhere. No sooner did a producer dominate his immediate market than a competitor, reaching out from a point perhaps 500 miles away, would invade his territory and prevent him from charging what the traffic would bear. In periods of decreased demand, competition intensified the depression and unduly favored the large buyer. When demand increased, the same evil genius influenced the producer to take all the business which he could get at the low figures, in fear lest the orders should go over the way, and so prevent him from gaining more than a part of the advantage which prosperity would otherwise have brought him.

Under competition, moreover, even when profits were earned, they must be hoarded with jealous care for the needs of the business. Progressive manufacturers were at all times driven on by fear of what their competitor might be doing, to make large expenditures upon betterments in order to lower their cost of production. This policy of rapid improvement and large capital expenditure was no doubt for the permanent advantage of the manufacturer, because his plant was all the while growing more effective, and he would probably have an opportunity to realize the fruits of his self-denial. The investment of earnings in betterments was also in the interest of the public. Invention and improvement are always most active when the lash of competition is applied to the manufacturer, and the consumer profits from the lower values which competition frequently

produces and invention confirms. In the interest of public policy, the investment of profits is to be commended; but it should not be forgotten, when the benefits of competition are extolled, that society is a long way from the time when men will labor for the public interest to the relative subordination of their own advantage. Whatever the social and industrial effects of large capital expenditure out of earnings, the manufacturer was not satisfied with its financial results. A high rate of disbursement was in most cases impossible, and the payment of any dividend was conditioned on the accumulation of a large surplus.

All things considered, it is not difficult to understand why the *régime* of free competition was productive of manifold hardships to the manufacturer. Competition might be considered the life of trade, but at the close of the last industrial depression it was regarded as the death of profits. It was highly desirable from the manufacturer's view-point to stop, or at least to abate, this struggle, which benefited nobody save the consumer, and which, even in his case, in the field of production goods, had to be straightway passed on to his own customers. The producers were tired of working for the public. They desired a larger profit without such an effort to get it, and they wished to have that profit available for distribution and not locked up in plant and equipment. In 1898 and 1899 the time was ripe for a change. Men were weary of competition, and the era of combination was gladly welcomed.

The current opinion of competition is illustrated by the following quotation from the Iron Age of August 24, 1899, p. 16: "There has not been for years a period so fraught with interest and of such vital moment to the manufacturers of builders' hardware as at present. For many years the story has been one only of grinding

competition that has blotted out several firms, has brought others close to the ragged edge of disaster, and has sorely tried even the strongest and best equipped. . . . Unrestrained competition is frequently a serious commercial evil and of no permanent benefit, even to the consumer, for the cheapening of goods is too often at the expense of quality. Never has this had better illustration than in the case of builders' hardware during the past decade. . . . It is a heterogeneous mass, without order, system, or design; a constant multiplication of copies badly done; of many unnecessary and poorly constructed items, with only here and there something of artistic and mechanical excellence rising above the general commonplace chaotic level."

CHAPTER III

THE REGULATION OF COMPETITION—FROM THE POOL TO THE HOLDING COMPANY

Many attempts had been made before 1898 to lessen the recognized evils of competition. These attempts had usually taken the form of pools, many of which, especially in the iron and steel trades, were organized during the last industrial depression. A pool is a voluntary association of sellers who place the marketing of their product under some central control or general restriction. The primary object of such agreements is to secure profitable prices, either directly or by means of payments from a central treasury, to the members of the association. The methods by which these profitable prices have been secured are in general as follows: (1) The output of the mills included in the association is restricted, so that prices can be advanced by the limitation of supply; and (2) the buyer is held to the regular quotations, and is unable, by playing off one competitor against another, to obtain special concessions. The pool may go further than the regulation of prices and output; it may secure favorable terms on material purchased; it may deal as an association with railroads to obtain such concessions as are granted to large supplies, and it may assist its members in dealing with organized labor. As a general proposition, however, the purpose of a pool is to regulate production

and control prices, leaving other details of management to the separate companies.

The pool is usually organized with a central governing or advisory body which conducts all routine business, and receives and distributes the funds of the organization. A matter of such importance as a change in prices, would generally be decided at a meeting of all the members of the association, or by some executive committee composed of the larger manufacturers. Within these lines, the pool has assumed a variety of forms.

The Bessemer Steel Pool, which was organized in 1896, furnishes an illustration. This organization included the majority of the producers of crude steel and finished material in the Central West. Every mill was given a percentage allotment which it was allowed to sell—say 500,000 tons, or one-seventh of the total estimated output of the association. At the end of each month, the shipments from all the mills were reported to the officers of the pool. If any mill was found to have exceeded its percentage allotment, it was required to pay into the pool treasury $2 per ton of such excess, while an equivalent was paid out of the treasury to those who did not ship their allotment. For example, if the mill which was alloted 500,000 tons sold 700,000 tons, while the sales of another mill fell 200,000 tons short of its allotment, it would receive out of the pool treasury the amount which Mill No. 1 would pay in—viz., $400,000. The existence of this penalty operated to prevent price-cutting among the members of the pool.* In the Wire Nail Association, which held control of the nail market during 1895 and 1896, the central office fixed prices and assigned to each producer his share of the output, which it was believed could be marketed at the price agreed upon. It often happened in the management of a pool that the output of

* Iron Age, November 19, 1896, pp. 967, 968.

the association would be produced by a few of the best equipped or best situated plants, the owners of the idle plants being paid a certain rental to keep out of business.

The essential weakness of this form of organization is its inability to enforce its agreements. The necessity of voluntary assent on the part of every member of the association, the liberty of each to withdraw on short notice, and the difficulty of establishing relations of mutual confidence among competitors, all unite to emphasize this defect. The members of a pool have long since formed the habit of closely scrutinizing the moves of those in the same business, and even a small misunderstanding often creates a feeling of mutual distrust and apprehension which work the destruction of harmony and the final dissolution of the organization.

The successful management of a pool is peculiarly difficult during a period of business depression, when business at remunerative prices is hard to get. Strong producers at such a time are suspected of attempts to obtain more than their allotted share of orders by methods which are contrary to the spirit, if not the letter, of the pool agreement. For example, the Bessemer Steel Pool, above referred to, originally applied only to the tonnage of steel billets, ingots, bars, or slabs. The steel which was rolled into merchantable shapes did not count in the allotment. Some of the large producers took advantage of this fact to market as much as possible of their output in the form of finished material, by this method of indirection far exceeding the limits of their allotment, and they could not be penalized for so doing.* Such offenses against the pool agreements made their permanent continuance impossible.

The following quotation from the Iron Age of December 10, 1896, shows the usual fate of these associa-

* Iron Age, July 10, 1896, p. 223.

tions and the results which follow their dissolution: "The Billet pool, or Bessemer Steel Association of the United States . . . is now in session. . . . The meeting promises to be a stormy one, as there is considerable ill feeling against certain concerns who are charged with having violated the pool agreement. The pool was practically dissolved as soon as the resignation of the Bellaire Steel Company was in the hands of the secretary. There has been an open market on Billets, Sheet and Tin-plate Bars since Saturday morning and a scramble for business on the part of some mills. Probably 25,000 tons of Sheet Bars have been sold this week at very low prices, the deliveries running up to the close of 1897. There have also been considerable sales of Billets and Tin-plate Bars at low prices."

The prices which follow the dissolution of a pool, when confidence has been destroyed, and when manufacturers are making concessions to secure business, are often even lower than the low prices which had brought the producers together. Before the dissolution of a rail pool, in February, 1897, the price of steel rails at Chicago was $27.50 per ton. Owing to the dissatisfaction of the Lackawanna Iron and Steel Company with its allotment of 17 per cent of the total output, and its consequent withdrawal from the association, and owing to the demand of the Illinois Steel Company for all territory west of Pittsburg, the pool was disrupted. Steel rails were immediately offered by the Carnegie Company for delivery at Chicago at $17 per ton, a reduction of $10.50 from the pool price.* In 1895, for six months before the organization of this pool, the price of rails averaged $21 per ton. After the dissolution of the pool, the price did not again reach this figure until January, 1899. The breakdowns of pooling agreements in the steel trade during the period 1892–1898

* Railway World, February 13, 1897.

occurred with such periodical regularity that large buyers were accustomed to wait for the dissolution before making their purchases. After the break in the rail pool in February, 1897, the Eastern sales resulting from the reduction in price amounted to 200,000 tons. The Illinois Steel Company in the West booked orders amounting to $5,000,000. The railroads hastened to load up the rail-mills with large orders, often for delivery eighteen months in the future.*

Not only were the pool agreements unstable, but their regulation of prices was frequently very foolish. The determination of the policy of a pool is, in most cases, a question of majority rule, and the majority of producers in any trade are unlikely to be possessed of a broad grasp of business situations, or to be able to see farther than the immediate future. When they found themselves in control of the supply, the various associations frequently raised prices to figures which seriously interfered with demand and which stimulated immediate and general competition. The policy of the nail pool above referred to offers a good illustration of this tendency to extortion. In the face of a general decline in prices, and a severe depression affecting every important industry, the price of a keg of wire nails was increased from 87 cents to $2.55, a rise of almost 200 per cent, and this high price was maintained for six months.

The Iron Age characterized this policy as follows: †
"Looking at the matter even from the manufacturer's standpoint, it would seem the part of wisdom to have put the price of nails at a reasonable figure rather than attempt to maintain a price which in the very nature of things must be temporary, and may, perhaps, end in disaster. Only those in close touch with the trade are aware of the in-

* Railway World, February 13, 1897.
† July 2, 1896, p. 30.

fluence which the policy of the association has in encouraging the establishment of new plants, whose competition must be troublesome, while at the same time it invites the importation of foreign nails. . . . The trade are aware that the present price of nails is abnormally high as a result of agreement between the manufacturers—so high, in fact, that it is constantly under suspicion. The trade will doubtless continue to limit their purchases to their imperative requirements so long as nails are held at their present figures."

Pooling agreements among manufacturing competitors are inherently defective. They have no firm basis in mutual confidence. They usually result in such an unreasonable increase of prices as to check consumption and stimulate competition. In few cases have they been productive of more than a temporary advantage in profits to their members.*

The "Trust" movement of the eighties promised a more satisfactory restriction of competition. In this form of organization, agreement among manufacturers as to prices and output was secured by depositing the stocks of the constituent companies with trustees in exchange for trust certificates. These entitled the holders to such dividends as might be declared on the stocks, and also empowered them to vote for the trustees in the same manner as the stockholders of a corporation elect their directors. The trust certificates, moreover, could be dealt in on the stock exchanges in the same way as the certificates issued by the voting trust of a corporation. The trustees, being in control of the stock of the several corporations included in the trust, directed the management of these companies,

* See Iron Age, January 7, 1897, p. 12, for a discussion of the weakness of pooling agreements. For an extended discussion of pool methods, see a series of articles in the Iron Age, during 1898, entitled History of a Pool.

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and secured a uniform policy upon prices and output. Permanence of control was secured by making the transfer of stock to the trustees, except by formal dissolution of the trust as provided for in the articles of association, irrevocable.

The trust, so far as it included former competitors, furnished a more satisfactory restriction of competition than the pool. It was open to fewer objections; its organization was permanent; its government was centralized, responsible, and representative. The control of the constituent corporations by the central organization—the trustees—was complete, for the trustees elected the board of directors of each of the constituent companies. Because it was permanent and centralized, the trust pursued a more enlightened policy as to prices than the pool. The Standard Oil Trust made a considerable reduction in the price of refined petroleum, and the Sugar Trust, although for some years in practical control of the market, did no more than to restore prices to a living basis. The Whisky Trust attempted to charge excessive prices, but the complete failure of its attempt, owing to the growth of competition, justified the wisdom of the more conservatively managed organizations.* The Cotton Oil, Linseed Oil, and Lead Trusts showed no disposition to practise extortion upon the consumers of these products. The trust, as a device for the control of competition, was satisfactory. Its legal position, however, was inherently defective.

Beginning with the Granger agitation against the railroads in 1870, there has grown up throughout the United States a pronounced sentiment against monopoly, understanding by monopoly any attempt on the part of a rail-

* See report of the Industrial Commission on Trusts and Industrial Combinations, Industrial Combinations and Prices, by Jeremiah W. Jenks, pp. 39–57.

road or manufacturing corporation to increase rates or prices by reason of its control of a particular market. At present, no less than thirty-seven States have enacted laws against monopoly. Many State Constitutions contain similar provisions.* In 1890, sixteen States, either in their Constitutions or by statute, prohibited any combination in restraint of trade; and the common law, which was generally applicable throughout the States, also forbade any combination of this nature. The antitrust law of Missouri, for example, prohibited any "pool, trust, agreement, combination, confederation, or understanding with any other corporation, partnership, individual, or any other person or association of persons, to regulate or fix the price of any article of manufacture." In 1890, Congress passed the Sherman Antitrust Act, which declared that "every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal." This legislation was backed up by a vigilant public opinion rancorously hostile to large corporations. It was not to be expected that the trusts would long survive in such an unfriendly atmosphere.

The pool was also specifically designated by most of these statutes as an unlawful combination, but the pool was a secret agreement whose details were not a matter of record and against which it was difficult to secure evidence. The Addyston Pipe and Tube Company is the most conspicuous case of the dissolution of a pool by legal process, and here the evidence against the organization was only secured through information given by a dis-

* For the text of a number of these statutes, including the Sherman Act of 1890 and the antitrust laws of twenty-nine States, see Report of the Joint Committee of the Senate and Assembly of the State of New York appointed to Investigate Trusts, pp. 1135–1219.

affected stenographer.* That such pools existed was common knowledge, but to obtain conclusive evidence was difficult.

The trust, however, which was a permanent pool, and which was expected to realize the benefits of the pool while avoiding its mistakes, lay open to attack. The trust agreements were matters of record. Their organizations were made under the usual legal forms, and the details of these organizations could not be concealed. The trustees could not refuse to disclose their authority for issuing the trust certificates which were dealt in on the exchanges. Any stockholder could enforce his right to examine the constitution and working of the trust which held his property. Neither could the fact be concealed that these corporations, whose identity and active life had been preserved, were, under the trust agreement, no longer masters of their own actions. They had surrendered their delegated powers to the trustees. A perfect "combination in restraint of trade" had been effected, and in view of the manifold statutes prohibiting these self-evident combinations, the dissolution of such combinations waited only for an attack upon their right to exist.

The attack came in 1890, when the Attorney-General of New York brought suit against the North River Sugar Refining Company under the common law. The case was decided against the company, not only on the ground as stated in the opinion of the Circuit Court, that the North River Sugar Refining Company was a combination . . . "the tendency of which is to prevent competition in its broad and general sense and to control, and thus at will enhance, prices to the detriment of the public, . . . but because the corporation, entering the trust, had exceeded the powers of its charter. The defendant had disabled

* See Commercial and Financial Chronicle, vol. lxix, p. 1080, for description of the working of this pool.

itself from exercising its functions and employing its franchise as it was intended it should by the act under which it was incorporated, and had, by the action which was taken, placed itself in complete subordination to another and different organization to be used for an unlawful purpose, detrimental and injurious to the public. This was a subversion of the object for which the company was created, and it authorized the Attorney-General to maintain and prosecute this action to vacate and annul its charter." * The Standard Oil Trust was also declared illegal on similar grounds by the Supreme Court of Ohio in 1892.

The result of these suits showed that even without the new menace of the Federal antitrust law the legal position of the trust had become impossible. The States had prohibited all combinations in restraint of trade. The corporation is the creation of the State, and the State can revoke the powers which it has granted when these powers are exceeded or unlawfully exercised. Certain corporations had combined into trusts in order to limit competition —i. e., to restrain trade. These corporations had exceeded their powers, they had violated the laws of the States which had created them, and their charters were therefore forfeit. Unless some new device could be discovered by which the hardships of competition could be alleviated, the pool, whose existence, though illegal, could be partially concealed, and which was ordinarily safe from legal attack, whenever regulation was required, must still be employed. Its defects were generally admitted, and it often aggravated the very evils which it was designed to cure; but if the trust was to be forbidden, the pool seemed to be the only form of combination possible.

In 1892, the Standard Oil Trust solved the problem presented by the illegality of the trust agreements by

* Opinion of General Term of Supreme Court, quoted in Report of Industrial Commission, vol. ii, p. 187.

the application of the principle of community of interest to the management of its various constituent companies. This trust was dissolved, and the stock was returned to the holders of the trust certificates, which were then canceled. A majority of the stock of each company, however, was retained by nine men who had been prominent in the affairs of the trust, and unanimity of action was in this way secured.* Such an arrangement is always open to objection. It depends for its success upon the maintenance of harmony among the members of a group of individuals, and upon the tensile strength of the ties of self-interest supplemented by the bonds of friendly association and personal regard. The control of the various Standard Oil companies was held by the members of a single family and their close personal associates. These men had long been identified with a single interest, and the feuds of the competitive struggle had not divided them. The principle of community of interest proved to be, in this case, a working substitute for permanent organization.

Generally speaking, however, mutual self-interest backed by the friendship of members of a group of business men is a precarious foundation for stability of prices or rates. Self-interest may lead men one day together and the next day it may lead them apart, and when the

* Report of Industrial Commission on Trusts and Industrial Combinations, vol. i, p. 574, testimony of Mr. John D. Archbold. "*A.* Well, briefly stated, the Standard Oil Trust, as such, existed from the year 1882 to 1892. . . . In 1892, at the time of the dissolution, the majority of the stocks of the various companies concerned or involved in the Standard Oil Trust were distributed to the equitable owners. . . . *Q.* Nevertheless, since that time the different Standard Oil companies have worked together in harmony, have they not? *A.* The ownership has naturally brought them into harmony of action; the like ownership, of course. *Q.* The general way in which the control has been kept uniform has been this, that the men who were the former trustees have held the majority of stock in each one of these different companies? *A.* Exactly so."

paths of self-interest diverge, friendship is usually powerless to prevent a break. Community of interest as applied to railroads on May 9, 1901, was found wanting connection. Yet the threatened catastrophe of renewed competition among the members of the trust must be prevented, not only to secure the advance toward stability of prices, which had already been made, but to furnish similar solutions for other vexing problems of competition.

Before 1889, when the corporation law of New Jersey was revised,* the laws of no State authorized the chartering of a corporation for the general purpose of owning the stocks or property of other corporations. Consolidation of corporations was more generally permitted, but the purchase of stocks of other corporations by a holding company was not considered to fall within the field of corporate privilege. There were but few exceptions to the general rule that a corporation should be organized for a specific purpose or for closely allied purposes. Pennsylvania had gone so far as to prohibit incorporation for more than one purpose.

Now it was plain that the trusts could be preserved if a new corporation could be formed which was empowered to purchase, either for cash or with its own stock, the stocks of the several companies which were included in the trust, and which it was desirable to keep united under some form of permanent control. The only changes which would be made by such an arrangement in the organization of the combination would be these: (1) To substitute for the certificates of the old trust the shares of the new corporation; (2) to change the relation of trustee and trust into the relation of owner and property; and (3) to substitute for a board of trustees a board of direc-

* See Dill, The Statutory and Case Law Applicable to Private Companies under the General Corporation Act of New Jersey, p. 75.

tors. The result would be a single corporation whose assets were the securities of other corporations, each one in the full possession of its corporate faculties and exercising all of its lawful corporate activities; but the affairs of all would be placed under the permanent direction of the company owning a controlling interest in the stock of each, and competition among these companies would thus be prevented. The holding company, if this course seemed preferable, after acquiring the stocks of a corporation, could dissolve it, remaining in possession of the property which the canceled stock represented, and the securities-holding company could also purchase the property of partnerships or individuals without resort to the expedient of organizing them into corporations in order to place their ownership in trust, as was formerly necessary.

It is true that this proposition of the holding company, first broached about 1890, did not differ in principle from the illegal trust which it was intended to supersede. The same combination in restraint of trade existed as before. If anything, the new combination, which was one of ownership and not of trusteeship, was more perfect than the form which had just been declared illegal. The suggested plan was a violation of both the spirit and the letter of the antitrust laws which had just been successfully invoked against the Sugar Trust. A company whose sole reason for existence was to control the ownership of previously competing corporations had manifestly effected a combination in restraint of trade. All this was admitted. Moreover, no State in which the sentiment against monopoly was strong enough to pass and to enforce the antitrust law, could be expected so to amend the statutes of incorporation as to permit the organization of corporations to evade that law. However attractive the proposition might be, there seemed to be no way to bring about

the authorization by one set of laws of a kind of corporation whose reason for existence and whose purposes of organization another set of laws explicitly forbade.

The difficulty seemed to be insurmountable. For the sake of profits, competition must be restricted. The law said that its restriction was illegal. No State Legislature would have run the risk of legalizing the formation of corporations to perform *within that State* acts which would have necessitated the repeal of an antitrust law in order to make them lawful, and which would have been further in violation of the common law. But in those three italicized words lay the salvation of the trust. Although no State would empower a corporation to defeat the intention of its own statutes, a State was found to pass an act of incorporation which rendered void and of no effect the antitrust laws of every State attempting by statute to preserve competition. That State was New Jersey.

In 1889, the Legislature of New Jersey amended its corporation laws so as to include among the lawful objects of incorporation the right to purchase the stock of any company or companies owning, mining, manufacturing, or producing materials, or other property necessary for their business, and to issue stock in payment therefor.*

Under the provisions of this act, a body of men may form a corporation under the laws of New Jersey which, among other manifold privileges, may purchase and own the stocks, or other property of any corporation engaged in any kind of business in any State, providing the formation of this corporation does not violate any law of New Jer-

* See Dill, supra. This was changed in 1893 to read as follows: "Any corporation may purchase, hold, sell, assign, transfer, mortgage, pledge, or otherwise dispose of the shares of the capital stock of, or any bonds, securities, or evidences of indebtedness created by any other corporation or corporations of this or any other State, and while owner of said stock may exercise all the rights, powers, and privileges of ownership, including the right to vote thereon." Ibid., p. 74.

sey, on complying with the following easy requirements: (1) To pay a small fee and a small annual tax; (2) to maintain a principal office in the State of New Jersey at the entrance to which the name of their company is conspicuously displayed, and where a legal representative of the company can be found upon whom process may be served; (3) to keep the stock transfer-books of the company open to the inspection of any stockholder at its New Jersey office; (4) to make an annual report to the Secretary of State; (5) to hold their annual stockholders' meeting at the New Jersey office of the company; and (6) to have as one of their directors a resident of New Jersey.

For momentous consequences, this statute of New Jersey is hardly to be equaled in the annals of legislation. Sixteen sovereign States had passed searching and stringent laws in prohibition of any attempt to restrict competition; laws whose detailed minuteness of specification could hardly be improved upon; which had been proved effective against the only permanent form of competition regulation yet attempted, and which undoubtedly represented the conviction of a majority of the people of the United States—a conviction finding more general and authoritative expression in the Sherman Antitrust Law, and strengthened by the antimonopoly provisions of the common law; a well-nigh unanimous sentiment opposed to any form of trust or pool; and the little State of New Jersey, containing two per cent of the population and one and three-tenths of the wealth of the United States, by the simple act of amending its corporation law, nullified the antitrust laws of every State which had passed them.

A trust could not exist in New York. The courts of New York would not allow the creation of a holding company to perpetuate the trust under another and slightly different form. Here are, say ten corporations, all located

in New York, which were formerly engaged in competition, later organized into a trust, and more recently dissolved by the New York courts. The owners of these corporations, having experienced the benefits of combination, wish to continue their organization under another form. They apply to the New York Legislature for permission to charter a new company which shall purchase all their stock, and whose officers can thus control their united policy. The Legislature refuses the application on the ground that the new corporation would be the old trust under a new name, and would therefore be existing in violation of the same law which had been recently employed against its predecessor. The case of the stockholders seems hopeless. They are citizens of New York. Their corporations are chartered by New York. New York absolutely forbids them to combine in restraint of trade. What are they to do?

In despair they turn their eyes southward. There, upon the other side of the North River stands the State of New Jersey, beckoning them with welcoming hands. For a franchise bonus or fee, New Jersey will come to their assistance. New Jersey will authorize them to form a corporation which is empowered to buy the stocks of their ten companies. New Jersey will allow them, as a New Jersey corporation, to perfect the combination in New York—for operation in New York—which the laws of New York absolutely forbid. New Jersey will thus deprive the State of New York of the right to control, in the interests of what her Legislature considers to be public policy, the corporations which New York has created and over which it assumes sovereign power. New Jersey will perform a similar office for any body of individuals who may wish to evade the antitrust laws of any State in the Union. As a New Jersey corporation, they may combine and coalesce for the operation of any number of competing

plants, anywhere in the United States, with none to molest or make them afraid.

The State of New Jersey, by the amendment of its corporation law in 1890, preserved the principle of combination, and made the modern trust possible. It is true that Delaware, West Virginia, Maine, and New York have followed the example of New Jersey. From present appearances, moreover, the general exodus of incorporators to those States which offer them the largest privileges, and charge the lowest incorporation fees, bids fair to compel most of the other commonwealths to relax their restrictions. New Jersey, however, was the first State to liberalize its corporation laws, and to New Jersey belongs the honor of first discovering that a foreign corporation may do many things in a State which a domestic corporation is by the laws of that State forbidden to do. The farcical character of this method of incorporating in New Jersey is plainly apparent.*

It may be objected that the States could protect themselves against the encroachment of foreign corporations upon their rights; that a foreign corporation does business in a State only on sufferance, and that it can be excluded if any of its acts offend against the laws of its domicile. In theory, this view of the case is correct. The State may impose certain conditions upon foreign corporations; it may deny them the right of domicile and of owning real estate within its limits; it may require them to conform to its police regulations; and it may even, for sufficient reasons, prohibit a foreign corporation from doing business within its borders.

* For example: One trust company in Camden is the "place of business" of 800 corporations, most of whom are doing business in other States. The names of these 800 companies are "prominently displayed" on a small signboard at the entrance, and an employee of the trust company acts as the New Jersey director of hundreds of corporations.

In all their restrictions and prohibitions upon foreign corporations, however, the States must respect the rights which a foreign corporation enjoys under the Constitution of the United States. The State may not discriminate against a foreign corporation, for that would deny to that corporation the equal protection of the laws; nor may it prohibit a foreign corporation from sending its agent into any State of the United States for the purposes of trade and commerce; this would be a regulation of interstate commerce, and therefore unconstitutional. But if the State can not lay unequal burdens upon foreign corporations, nor exclude their agents from carrying on business within its boundaries, then it is powerless to defend its antitrust laws against the foreign corporation which has successfully evaded them. Moreover, a New Jersey corporation can own the stocks of competing companies in another State without destroying the corporate existence of any one of them, and can thus eliminate that competition which it may have been the special care of the Legislature of this State to preserve.

The legal position of the holding company was finally established by the United States Supreme Court in a case brought before it to test the applicability of the Sherman Act to the American Sugar Refining Company, which had just purchased four competing refineries in Philadelphia. The court held that the Sherman Act applied only to interstate commerce, and that "the fact that an article is manufactured for export to another State does not of itself make it an article of interstate commerce." The court declared that, were the terms of the act more liberally construed, the effect would be to give the Federal Government control of nearly all the business of the States, a right which it was never intended that it should possess.*

* United States *vs.* E. C. Knight Company, 156 U. S. 1, January 21, 1895.

Moreover, when, as usually happens with the industrial trusts, the New Jersey corporation owns no property other than the stocks of other corporations, the States in which these constituent companies are located can attack neither the domestic corporation which still preserves its separate existence, nor the New Jersey corporation which is acting within the laws of the State which created it. The company organized to own the stocks or property of other companies proved, therefore, to be the solution of the problem presented by the hostile attitude of the State Legislatures toward the trust. Under the joint protection of the State of its origin and the Constitution of the United States, and secured from interference by the Federal courts, the trust, as this form of corporate organization, borrowing its name from the institution which preceded it, is now universally known, could achieve all the purposes of its organization without let or hindrance.

The difference between the old-time trust and the trust as we know it to-day, and the nature of the change in combination-organization which has taken place, may be illustrated by the table, page 44, which shows the metamorphosis of the Sugar Trust in 1891.*

Industrially, the two organizations are identical. Their resources, their equipment, their organization, and their market are the same. Legally, however, between the "trust" and the "industrial combination" there is a great gulf fixed. It is impossible for the law to take cognizance of the fact that the American Sugar Refining Company

* Report of Industrial Commission, vol. i, p. 123. See Commercial and Financial Chronicle, vol. li, p. 610: "All the properties now represented by the certificates of the Sugar Refineries Companies [the Sugar Trust] will be acquired by 'The American Sugar Refining Co.' . . . The shares of the American Sugar Refining Company will be exchanged share for share for Central Trust Company Receipts. . . ."

	THE SUGAR TRUST. STOCK OF CONSTITUENT COMPANIES IN HANDS OF TRUSTEES—TRUST CERTIFICATES OUTSTANDING.		THE AMERICAN SUGAR REFINING CO.	
		Capital stock.	Capital assets.	Capital stock.
The Sugar Trust.	1. The Havemeyer & Elder Sugar Refining Company	$500,000	$500,000	
	2. The Dick & Meyer Company	200,000	200,000	
	3. The DeCastro & Donner Sugar Refining Company	350,000	350,000	
	4. The Moller & Sierck Company	210,000	210,000	
	5. The Oxnard Brothers Company	100,000	100,000	
	6. The F. O. Matthiessen & Wiechers Sugar Refining Company	400,000	400,000	
	7. The Brooklyn Sugar Refining Company	300,000	300,000	
	8. The Havemeyer Sugar Refining Company	1,000,000	1,000,000	
	9. The Forest City Sugar Refining Company	300,000	300,000	
	10. The Boston Sugar Refining Company	650,000	650,000	
	11. The Standard Sugar Refining Company	1,000,000	1,000,000	
	12. The Bay State Sugar Refining Company	225,000	225,000	
	13. The St. Louis Sugar Refining Company	755,000	755,000	
	14. The Louisiana Sugar Refining Company	450,000	450,000	
	15. The Planters' Sugar Refining Company	250,000	250,000	
		$6,690,000	$6,690,000	
		Valuation	$50,000,000	$50,000,000

is the old Sugar Trust under another form. In the eyes of the law, the Sugar Trust died when the shares which it held were turned back to their respective owners. The law is in no way concerned with the subsequent sale of these stocks to a New Jersey corporation.

There have not been lacking critics to scoff at the change in the legal form of the trust as being a thing of little consequence—a mere trick—a subterfuge to evade the law. A senator not many years since aroused much ridicule by stating that the trust no longer existed. There has been, however, no more far-reaching change in the organization of industry than that which converted an illegal combination in restraint of trade into a corporation organized to manufacture and sell securities, and to own the stocks and properties of other corporations engaged in the manufacture and sale of commodities.

By reconstructing the " trusts " to conform to the law, by capitalizing these permanent pools, the builders of the trusts made possible a wide-spread reorganization of competitive industry along more profitable lines, and opened the way to the creation of the huge mass of industrial securities which represent the capitalization of manufacturing industry in the United States, from participation in whose profits the public had before been excluded. Without this device of corporate organization, escape from competition would have been impossible. By its aid, however, the profitable regulation of competition was, at least prospectively, secured.

Before 1898, the advantages of restricting competition had come to be recognized. A sufficient number of combinations had been formed to familiarize the public with their organization and some of the details of their management; the legal difficulties presented by the various antitrust laws had been surmounted; and, above all, the public had reached a firm conviction that the

profits of combination were enormous. Throughout the hard times which followed the panic of 1893, when competing manufacturers were gasping for breath, the Standard Oil companies of the several States, and the Sugar, Tobacco, and Rubber companies, experienced little inconvenience. American Sugar, for example, paid 12 per cent on its common stock throughout this period, and its associates were scarcely less fortunate. Controlling the production of necessary consumption goods—the demand for which was last to be affected—and secure from the attrition of competition, these great corporations presented a startling contrast to the general emaciation. Officials of these companies might ascribe their large profits to the "economies of combination," but the public correctly interpreted this phrase of euphony to mean the control of the market which the combination afforded. "Overproduction," "the wastes of competition," and such like explanations of the industrial depression from which the nation was emerging, united to emphasize the advantages of consolidation.

The time was ripe for the universal application of the trust principle to manufacturing industries. On the one hand the manufacturer was weary of competition and anxious either to combine or to sell. On the other hand stood the public, deeply impressed with the profits of the trust and anxious to buy the shares of industrial combinations if opportunity were given. Into this situation stepped the promoter, to whom a more promising opportunity to sell stocks had never been presented. The methods and the results of his activity we have now to examine.

CHAPTER IV

THE FUNCTION OF THE PROMOTER IN MODERN INDUSTRY

Every week of the year deposits of minerals are discovered, franchises are obtained, patents are granted. Railway extensions are constantly bringing land, timber, and coal into the market. Increasing population offers a basis for water, light, and transportation plants. New inventions stimulate new wants, and these wants in their turn produce new means of satisfaction. The field for investment, either in new enterprises or in the extension and diversification of established industries, is infinitely various.

To take but one field—the production of power—we find a vast range of opportunity for profitable investment. We have first of all the mechanical draft and the mechanical stoker, the use of superheated steam to reduce condensation, the inside firing boiler to prevent radiation, the steam turbine to utilize the direct pressure of steam, and the various devices to purify the water before it goes into the boiler, and to cleanse it for future use by condensing the exhaust steam. In other divisions of the field of power, we have the development of electrical power transmission bringing into the field of investment a large number of water-powers which until recently were wasted, and we have the general introduction of the gas-engine, which promises not only to solve the question of

the small power plant, but to double the efficiency of coal by using it, in two forms—coke and gas. In every other field, similar opportunities are multiplying. Improvements long since discovered are forcing themselves into general notice. New improvements are attracting instant attention. Never before in the world's industrial history has man increased his conquest over nature at such a rapid rate, and simultaneously in so many fields.

These opportunities for the production of wealth are opportunities for the investment of money; for the investment of money aids, generally speaking, either directly or indirectly, in the production of wealth. The investor buys $50,000 of railway bonds. With the proceeds the railroad replaces a wooden trestle with a steel bridge. Over this bridge it can run a heavier train load, which it obtains by the lower rate which the decrease in operating cost, resulting from that heavier train load, makes possible. The lower rate enables the farmer to turn a part of his grazing land into wheat, and so, eventually and indirectly, the $50,000 invested in the railway bonds has increased the supply of wheat on the world's market. This increased production of wealth was made possible by the purchase of the bonds which the investor bought, because out of their increased earnings the railroad could pay him his 4 per cent. Without investment, increased production would be impossible. Upon the investor rests the responsibility of adding to the wealth of the world. As he directs his funds to railroads, cotton-mills, irrigation, or ship-building, the productive energy of society is exerted in this or that field of enterprise.

This office of investment is variously performed. Men may invest or capitalize their own savings. The farmer devotes $1,000, half the proceeds of his last wheat-crop, to the purchase of nitrate fertilizer. The New England cotton manufacturer invests his surplus earnings in a South

Carolina mill where cheap power, labor, and material invite development. The Bessemer steel-maker adds an open-hearth furnace to his equipment, and takes advantage of a local supply of scrap. The Pennsylvania coal operator or lumberman buys the cheap coal and timber land of the South. Every successful producer is continually devoting his surplus funds to enlarge his enterprise along lines with which he is familiar as competition compels or as opportunity presents for greater profits. The producer often branches out into other fields, as when the farmers of a locality erect a flour-mill or a sawmill, or open a stone quarry, or when the carriage-maker engages in the manufacture of automobiles, or when a railroad spends a portion of its surplus in purchasing a coal property on its line. By such investments, producers extend their business out of their profits and with their own funds.

Every industry is constantly growing from within—as the biologists say, by intussusception—out of the profits of the past, and individual producers are making ventures of their money into untried fields in enterprises where they alone stand to win or to lose, and where they act from personal knowledge of the opportunity. With this kind of investment, the study of Trust Finance is not directly concerned.

There is a second class of investors, which may include some of the first class, but whose members are actuated by different motives and who act in a different way. These persons are also in possession of surplus funds from the employment of which they wish to obtain a profit, and they are ready to buy the stock of any corporation which gives them the assurance of satisfactory return. They are in the market for any securities which they consider to be safe and profitable investments. The members of this class are not, as a rule, in close touch with the indus-

tries whose securities they buy. A leather merchant invests in steel, a banker in railroads, a retail dealer in mining stock, not because he desires to identify himself with the business in which he invests, so far as to give it his close personal attention and to assist in its management, but solely that he may share in its profits. Included in this class are investment institutions and managers of trust funds, who take no active part whatever in the numerous enterprises whose securities they hold.

The importance of this vicarious interest in industry is steadily increasing, for production is each year being carried on on a larger scale, and it therefore becomes increasingly difficult for a few men to combine a sufficient amount of capital for the inauguration of a new enterprise or the development of an enterprise already established. Twenty years ago timber was readily accessible, and a few thousand dollars would build a sawmill. A half-dozen farmers, by combining their savings, could start in the lumber business. To-day, a well-equipped sawmill may cost $100,000, and added to this may be the expense of perhaps twenty miles of railroad to reach the timber. The assistance of outside capital is becoming every year more essential to the development of any industry or the exploitation of any resource.

The proprietors of this outside capital, as just observed, know little about the technical aspects of the industries into which they put their money. They are acquainted with these industries merely as sources of profit. If they can be given satisfactory assurances that profits will be forthcoming from a proposed development, they are willing to invest money to that end. They will not, however, devote themselves to searching out and preparing the propositions into which, when once discovered and prepared, they are willing to put their money.

This attitude of the general investor necessitates the

promoter, whose function in industry has already been defined in the preceding chapter as that of discovering investment opportunities, organizing companies to develop these opportunities, and selling the securities of these companies to obtain funds for development. The promoter is the man who discovers and "assembles" the proposition for the investor; and the investor, if satisfied with the prospect of profit, provides the funds for its development. The promoter not infrequently is himself engaged in the industry which he proposes to extend or to develop in some other locality. In this case, his proposals are more favorably regarded by the investor, who justly considers that the promoter is well qualified to judge of the merits of the proposition. Mr. John W. Gates, who was associated almost from the beginning with the wire industry of the United States, was a promoter of this class. In projecting the Federal Steel Company and the American Steel and Wire Company, he spoke with the voice of authority.

On the other hand, and this is more often the case, the promoter may not be particularly conversant with the practical and technical affairs of the industry into which he temporarily enters. The limitations of practical knowledge may be illustrated by those promoters who make a specialty of certain lines of industry—for example, street-railways. A successful street-railway promoter will usually have a very keen and trained judgment regarding street-railway statistics. He will know the exact percentage which operating expenses should bear to total income under given conditions, and of the cost per mile for running cars, and he will be able to analyze with intelligence the statistics of operation and construction. Beyond such facts as these, however, he would be unlikely to have any practical knowledge, and relies upon the judgment and estimates of reputable engineers. Judge William H. Moore, for example,

who has within recent years promoted several large steel corporations, is understood to have had but little practical knowledge of the steel industry. The professional promoter, and it is with him that this study is chiefly concerned, in forming his judgments, depends upon the trained judgment of experts—civil, mining, mechanical, or electrical engineers, lumber viewers, chemists, geologists, metallurgists, and machinists.

These experts, whose income depends upon their accuracy, give him the necessary technical information about the proposition which he has in mind. They tell him if the coal-seam is regular or faulted, if the proposed operation will be self-draining or if pumping machinery must be installed, if the coal is high or low in sulfur and silicon, whether it will make a strong or a weak coke, or, if designed for steam purposes, whether it will be high or low in ash. The professional promoter, in the course of his business, and from his association with technical experts, must necessarily accumulate a great store of practical information. His ability to make a technical judgment should constantly increase; but if he devotes his energies to the promoting business, it is next to impossible that he should master all the sciences and arts whose conclusions and rules are put at his service by the experts whom he employs, and whose opinions he relies upon as an aid to convincing the investor.

Given the technical information, there remains the field where the promoter must rely more largely upon his own ability—the financial aspect of the proposition. Will it pay? In the case of a coal-mining proposition, he must determine the price per acre at which the land can be purchased, the rates of freight which will be charged, and the prices which can be obtained for this grade of coal in the different markets. He must consider the labor conditions of the region, the laws of the State regulating the com-

pany store, and the attitude of the railroads toward an independent enterprise.

To spend but a moment upon this last point as illustrating the importance of the promoter's judgment—if his property is located upon competing lines, he can look for substantial concessions in rates, but, on the other hand, he knows that these favorable rates may flood the markets with low-priced coal in which there is small profit. If he has the facilities of a single line, he must consider whether either the company or its officials are interested in coal properties whose product will compete with his own, in which event, in a slack market, his car supply may be suddenly abbreviated. He may also take into account the holdings in this road by another coal road in the bearing of this dual interest upon differentials. All these points the promoter will consider in forming his judgment as to the probable success of his enterprise.

Having formed a favorable judgment, having "discovered" the proposition, the promoter now proceeds to "assemble" it. To this end, he must either purchase, or secure the right to purchase within a fixed time and at a price the property or privilege which he has determined to exploit, whether mine, patent, timber land, or franchise. As a rule, the method of option is the one usually followed, because it requires a smaller outlay of cash by the promoter, and involves a smaller loss in case his flotation should be unsuccessful.

To continue our illustration: The promoter wishes to purchase 5,000 acres of coal-land owned by fifty farmers. He goes into the district, and visits these farmers at their homes. He explains his purpose to them, assures them that he will be able to raise the money to develop his proposition, and asks them, for the sake of their mutual interest, and for a nominal consideration in hand paid, to sell him

an option to purchase their property at any time within six months, at a price of, say, $20 per acre.

Various arguments may be employed to influence a general assent to this proposition. The landowners may be shown that the value of the surface soil which will remain in their possession after the transfer of the coal, will be increased by the demands which a coal-mining community will make for the produce of their farms. They may be offered the advantage of a railway which the opening of coal-mines will bring. The hopelessness of developing their own property may be pointed out to them, and as a last resort the promoter may threaten to "sew them up" by refusing to transport their coal over his road. By employing such arguments, the promoter persuades the farmers to option or "lease" their land.

As far as possible, he keeps each owner in ignorance of the terms offered to his neighbors, for a general diffusion of such information would cause a general raising of prices. In dealing with the well-to-do and intelligent farmers, he must often pay a high price for the option, and the price named in their instrument is also high. The promoter submits to these onerous terms not merely because he wants the land of these hard bargainers who know just how indispensable their coal is to him, but also and chiefly because he desires to use their names and influence with other owners. These higher prices are recovered in dealing with the more ignorant landowners, who are greatly impressed with the representations of the promoter, and also by the fact that their richer neighbors have joined the scheme. It may even be necessary for the promoter to employ coercion through an alliance with the general storekeeper, who may hold chattel mortgages and judgment notes against the recalcitrants—powerful arguments when skilfully employed.

The promoter has now "assembled" his proposition. The owners have obligated themselves to sell to him at a price until the expiration of six months. He knows how much the land will cost, and he has it under his control. The next step is to "float" his scheme—that is to say, to raise the money necessary to develop it. To this end, the promoter forms a corporation whose capitalization, if he is a conservative man, will be based on the probable earning power of the property, say $100 per acre, or $500,000 of stock. This stock, to reserve the special details of the flotation to the discussion of the trust, he succeeds at placing at fifty cents on the dollar before the six months of his option have expired, either with investors who wish to hold the stock or with bankers and financiers who expect to sell at an advance.

Out of the $250,000 which he realizes by the sale of stock the promoter pays $100,000 for the coal, $75,000 for development and working capital, and either puts the $75,000 remaining into his own pocket or divides it with the financial interests who have assisted him by advances.

The banker and the investor purchase the stock because they have confidence in the promoter's judgment, and are therefore influenced by his representations that the proposed undertaking will prove profitable. They may examine the expert reports on the property, and may visit it under the guidance of experts. Their inquiries, however, are necessarily superficial, and they invest either on the representation of the promoter, or of some friend or banking associate in whose judgment they have confidence, and who may have gone into the scheme on his own account.

This represents a typical promotion. Similar enterprises are constantly being promoted throughout the country, not only on mines, but on real estate, manufacturing enterprises, water-power, irrigation, and timber.

The details of each may vary from the form presented, but the essential principles are the same: (1) The securing of a right to purchase an opportunity to make money; (2) the capitalization of that opportunity at a higher figure than the price to be paid the original owner plus the funds required for development; and (3) the sale of the certificates of this capitalization to the investor either directly or through the agency of middlemen for a sum of money exceeding the amount necessary to purchase and develop the resource which it is intended to exploit. The difference represents the promoter's profit, a characteristic feature of corporation financiering.

What has the promoter done to entitle him to this large profit? He has produced no coal; that is done by the company to which he turns over his options. Nor has he risked an amount of money in any way comparable to the profit which he has made. To obtain fifty options under the circumstances described may not have required an outlay of more than $5,000. Judged by the canons of what is generally considered to be legitimate money-making, the promoter has done nothing to entitle him to the $70,000 profit which, out of a flotation of this importance, he frequently takes. And yet the profits of the promoter are as legitimate as are the profits of any of the more familiar professions.

The promoter is a creator of value. He brings into existence a means of producing wealth which did not before exist. By combining the control of a number of separate pieces of coal property into a fully equipped coal-mining enterprise, he is able to offer to the investor an opportunity to earn, say, 20 per cent net on his money; in other words, to sell to the investor $500,000 worth of stock, which can be depended on to pay dividends of 10 per cent, for $250,000.

Without this combination, in the hands of individual

owners, without transportation facilities, and without modern equipment, the value of this coal, based on its earning power from the small openings which produce for the local trade, did not exceed $20 per acre. Combined under one ownership, connected with a trunk-line railroad, and equipped for large operations, a value of $100 per acre is not excessive. This increase in value of $80 per acre is the result of the investment of $35 per acre—$20 in the purchase of the coal and $15 in its development. In order to obtain the money necessary to purchase and develop his proposition, the promoter has been obliged to sell the opportunity which he controls at one-half its real value—i. e., at $50 per acre. Deducting the $35 which must be spent to put the coal on the market, there remains $15 per acre, or $70,000 in all—as the promoter's profit—a profit differing in no essential feature from the gains of the manufacturer who contracts ahead for his material and takes advantage of a rise in the nail or wire market.

But it may be objected, Why should the promoter be allowed to make this large profit? Why should it not be divided between the farmer who owns the land and the investor who furnishes the money? What is the justification for the promoter's profit? The answer to these questions lies in the nature of the transaction. Neither the owner nor the investor can do the work of the promoter, and they have, therefore, no claim to his profits.

The farmers, save in exceptional instances, could not even organize their own proposition, much less finance it. Mutual jealousies, local feuds, and overmuch information about the character and financial standing of local individuals who might undertake this work would interfere with any general agreement. It would be found next to impossible to agree upon the proper price for different pieces of coal-land. Farmer A, whose land lies near the creek, would insist upon a higher value for his property

than Farmer B, whose coal is less accessible; while B, on his part, might cite as reason for disputing the justice of A's claim, the fact that his coal had been opened in several places, while nobody knew that A had any coal on his property. Farmer C, who owned land across the right of way of the proposed railroad, and who therefore considered his cooperation indispensable, might insist upon a price of $150 per acre, which would probably disgruntle his less favored and jealous neighbors, and so defeat the scheme. The Brown family might refuse to go into any agreement with the Jones family, with whom one of the chiefs of the Brown clan may have had a lawsuit of some years' standing. Any one of a number of similar causes which might be cited would be sufficient to prevent the concentration of control of these separate properties, which are of small value unless combined.

Some one interest acting exclusively for its own advantage, and dealing independently with each owner, is essential to the assembling of such a proposition. This interest may be local, and, as already noted, by means of local alliances the task of the promoter is made easier; but in most cases, the successful coal promoter is the outsider who can pose as the man of wealth and connection, and can reap his harvest of options during the pleasant weather of a first impression. It is the general experience of promoters that an outsider of imposing personality, pleasing address, and experience in handling men has usually much greater success in securing options than even a local squire or other celebrity whose standing in the community may be of the best, but who is too well known to be allowed by his neighbors to make any large amount of money out of their property.

Even if the farmers succeeded in getting their proposition together in the control of a selected committee or individual, they would have great difficulty in securing a financial connection. They would have to provide for

expert reports on the property, and then to open negotiations with some financial interest with whom none of their members would probably be personally acquainted. After securing an introduction, they would present their proposition, probably in a lame and halting manner, which would not show that they possessed a comprehensive knowledge of the importance of the property in question to the general coal market.

Since they would have no connection with the investing public, if the banker to whom they would naturally apply for the funds was sufficiently interested to examine the proposition and to determine its value, he might take one of two ways to further his own advantage. He would either prolong the negotiations until the local contingent lost heart and withdrew, trusting to his own ability to obtain the options for himself, or he would compel the representatives of the owners, if they desired his assistance, to accept a price not greatly exceeding the face of their options; in which event the financier would be the promoter one stage removed, and acting by deputy. It is evident, therefore, that the larger part of the promoter's profits on such propositions can not ordinarily be saved for the original owners of the coal.

It is the same with any other proposition. The proprietor of an undeveloped opportunity is seldom in position to bargain to advantage for its sale. His best course is to put his property in the control of some promoter at a fixed price and for a definite time, contenting himself with effecting a sale, not at the price which he thinks the property is worth, but at a price which will represent a fair return on his investment of brains or money. Any attempt on his part to promote his own scheme is likely to end in failure. The failure of inventors to make more money out of the sale of their patents is probably due, more than to any other cause, to the fact that they insist upon an excessive

interest for themselves, and are unwilling to offer sufficient inducements to those who might otherwise promote the scheme.

It is equally impossible for the investor to secure the promoter's profits. The investor is looking for a security which will produce as large an income as is consistent with the safety of his principal. He is not likely to concern himself with the active management of those industries into which he puts his money. How much less likely is he, therefore, to abandon his regular business or profession and roam about the country in search of resources to develop. The investor, of necessity, assumes a receptive attitude. He is the customer to whom the promoter and financier offer their wares. He buys on his judgment not so much of the merits of the proposition as of the reputation of those who offer it for sale.

Even if the promoter could be compelled to take a profit of only $10,000 instead of $75,000, and could be required by law to leave $65,000 additional in the property, the investor would get no benefit. Suppose that this should be done, and note the consequences to the investor. We must assume that the enterprise has been fully equipped with machinery and working capital, and when experienced and responsible promoters handle a proposition of this kind the assumption is generally correct. We must assume, that is to say, that out of our 5,000 acres of coal-land a well-managed company is able to earn, one year with another, $50,000 per year, 10 per cent on the capital stock, by a cash investment of $175,000. Suppose, however, that the law compels the promoter to invest $65,000 more for the benefit of the company. This might be done by enlarging the scope of the enterprise, buying more land, or working a second shaft. The result of these enlarged operations, since the same equipment could handle a larger output, might be a total annual profit

of perhaps $90,000 on the same capitalization as before—viz., $500,000, or 18 per cent.

Now if the investor would pay—allowing the banker his profit—70 for a 10-per-cent security which the profit of $50,000 represented, he may pay 126 for an 18-per-cent security, represented by the larger profit of $70,000 due to the sequestration for the benefit of the company of the promoter's surplus. On the first investment, allowing the promoter to take what remains after the proposition is fully equipped, the investor receives an income of 14.2 per cent, and on the second investment he receives the same amount, for the price which he will pay for the stock rises with the rate of dividend which it yields. The investor, therefore, could not profit by the curtailment of the profits of the promoter. The result of such action, it is true, would be that the net earnings and dividends of the company would be increased. The investor, however, would receive the same rate of income from investing $1,000 in a 10-per-cent stock at 70, as he would receive from $1,000 invested in an 18-per-cent stock at 126. It may be said that the community would be the gainer because a larger amount of coal might be produced from the larger investment. This conclusion, however, rests upon two assumptions: First, that the original plans of the promoter were not large enough, since he could probably have capitalized his enterprise at $900,000 instead of $500,000 in case he considered that market and mining conditions warranted the larger output of coal; and, second, that the promoter will make an ineffective and wasteful use of the $75,000 profit which he takes out of the enterprise, and will not employ these funds in furthering new enterprises to which he may turn his attention. Neither of these assumptions is apparently well grounded. The promoter has, it is safe to say, provided for as large a production as is warranted by the conditions surrounding the enterprise,

and if his profits appear large, they are usually turned back into new ventures whose success will increase the wealth of the community.*

We must conclude, therefore, that the promoter performs an indispensable function in the community by discovering, formulating, and assembling the business propositions by whose development the wealth of society is increased. He acts as the middleman or intermediary between the man with money to invest in securities and the man with undeveloped property to sell for money. In the present scheme of production, the resource and the money are useless apart. Let them be brought together, and wealth is the result. The unassisted coincidence of investment funds with investment opportunities, however, is fortuitous and uncertain. The investor and the land or patent or mine owner have few things in common. Left to themselves they might never meet. But the promoter brings these antithetical elements together, and in this way is the means of creating a value which did not before exist, and which is none the less a social gain because much of it is absorbed by the promoter and the financier. We have now to examine the application of the general principles of promotion to the formation of the industrial trust.

* In some conspicuous instances, however, where horses, dogs, and pinks have figured largely, the claim that promoter's profits are wasted in riotous living has much to support it.

CHAPTER V

THE PROMOTION OF THE TRUST—I

The proposition which the trust promoter attacked was the consolidation of a large number of competing plants in a particular industry. He proposed to form a corporation to purchase these plants, either directly or by acquiring the stocks of the companies which owned them. Instead of fifteen, twenty, or thirty firms and companies engaged in competition, the promoter planned to substitute one large corporation which should include every plant of importance in the competing territory. There was to be but one corporation in each industry—one wire company, one bicycle company, one tube company, one company manufacturing tin-plate.

The value of each of the plants which it was proposed to include in the new trust was based upon its earning power. That earning power, as already shown in a former chapter, was greatly reduced by competition. The promoter expected to option each plant at a figure which should represent its past earnings, organize a company with a capitalization which should represent the increased earning power of these plants when competition had been eliminated, and sell the stock of this corporation to the public.

The advantage promised by this operation was the same as that of the coal-land proposition. By combining a large number of small holdings under one ownership, and

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properly equipping the property for large operations, the value of coal-land can be increased from $20 to $100 per acre. Out of the securities, representing this valuation, even at a discount of 50 per cent, the promoter can equip the property and have a large profit remaining. The average value of the thirty plants which the promoter desires to combine into a trust, when engaged in mutually reducing profits by competition, may be $500,000. This figure is the capitalization of their average earning power, at $50,000 per year. Combine all these plants under one ownership, thus eliminating competition, and you have increased this average value from $500,000 to perhaps $750,000. The enterprise can therefore be capitalized at $22,500,000 of stock, and this stock can be sold for a sum of money sufficient to take up the options, equip the corporation with working capital, and still leave a substantial margin of profit to the promoter. This, then, was the advantage which the trust promoter sought to obtain—to capitalize the economies of combination, sell the certificates of the capital, and obtain a share of the proceeds as his own profit.

His first work was to assemble his proposition—to get the plants under option. To this end, he had to convince the manufacturers that his scheme would be successful, that its industrial basis was sound and its financial support assured, and he had further to offer to each owner and stockholder a sufficient inducement to sell. The first part of the promoter's task was less difficult than the second.

The desire to eliminate competition was the principal reason for the formation of the trusts. From the producer's standpoint, this was a reason cogent and weighty. The promoter could enumerate several important advantages which would result from the acceptance of his proposals. Most important was the control of prices. Combination secures more stable prices to the producers, and

also enables them to accommodate their quotations to the state of trade. When business is brisk and the demand for their product increasing, they are not impelled by fear of competition to tie themselves to a low-price level by contracting for a year ahead. Contracts can be readjusted by a combination at short intervals so as to compel the large consumer to pay an increasing price.

The change in the attitude of the railroads toward the price of steel rails during the past year is an illustration. Not more than two years since, when rails sold at $26 per ton, the columns of the New York Commercial, which constituted itself the champion of the consumer against what it declared was an exorbitant price, were filled with interviews from prominent railroad officials, declaring that large orders for rails would not be placed until the price was reduced. They had been so long accustomed to buying rails at their own figures, and they had so long considered that the cost of producing rails should regulate the selling price, that for the mills to charge a price of $26 per ton, when the cost of production was known not to exceed $16, impressed these hitherto favored buyers as highly unreasonable and unendurable. At the present time, however, the railroads uncomplainingly accept a price of $28 per ton. They have been educated to higher prices by their inability to force concessions, just as they have themselves, by their own alliances, accustomed the shipper not only to pay the published rates, a thing unknown in the days of railway competition, but to pay higher rates.*

With competition eliminated, the manufacturer is able to charge what the traffic will bear, to get from the buyer all that the buyer can be induced to pay, and he is no longer

* The close accommodation of the price of sugar and oil to the consumer's demand offers another illustration of the advantages of combination. Commercial and Financial Chronicle, vol. lxx, pp. 78, 1151; and Report of Industrial Commission, vol. i, p. 118.

compelled to divide his profits with middlemen and secondary producers. For the same reason, when prices are falling, a combination is less exposed to the reckless cuts and sacrifice sales with which hard-pressed individual firms, at such a time, are constantly threatening the market. It is true that if mills are to be kept in full operation, prices must be lowered when demand declines, but the reductions can be made gradually and tentatively, so that the buyer is at all times made to pay all that he can afford to pay, and gains no unreasonable advantage.*

Moreover, if the depression is temporary, due to special and exceptional causes, such as a stock panic or a foreign war, while the industrial condition of the country is satisfactory, a combination in control of the market can sharply reduce production, and in this way sustain prices until confidence returns. Under competition, a large part of the advantage gained by the increased demands of prosperity has often been sacrificed by a temporary setback.† The mutual distrust of producers at such a time stands in the way of any restriction of output, and prices are allowed to sag at the dictation of the buyer, until, when the sky is again clear, the mills are committed to prices much lower than the circumstances of the buyer warrant.

Combination also enables the manufacturers to hold the buyers to their contracts. Mr. Gates discussed this advantage before the Industrial Commission. "*Q.* How is it that your power is greater under this [system]? *A.* Well, under the old system a merchant might quibble with

* For illustration of control of prices by trusts, see statements of H. O. Havemeyer, Commercial and Financial Chronicle, vol. lxx, p. 1151, and Report of Industrial Commission, vol. i, p. 118. See also Chronicle, vol. lxviii, p. 83, and vol. lxx, p. 78.

† Iron Age, February 15, 1900: "If the furnaces can hold out with a show of indifference, buyers will have to meet them or shut up shop. If, however, consumers or the bulk of them can wait long enough, the balance will be upset and prices will have to deteriorate."

half a dozen manufacturers, and there might be some one particular manufacturer that he would treat fairly, so that he would feel that he had a port in a storm. And in the commercial term men claim shortage, make unreasonable demands, and we do not find these demands to exist to any such extent as they did before. They claimed a shortage, for instance, of five kegs of nails or five spools of wire, and if we accepted their statement we had to fight it out with the railroad company. We had a check, and we thought we knew we were correct, and now we are pretty apt to be firm. We will always consider their claims, but we will not allow them freely, perhaps, as we would before; they have to be very thoroughly well founded on fact for us to make an allowance." *

When competition has been supplanted by combination, the recalcitrant buyer has no "port in a storm." Should he prove refractory, as Mr. Gates said, "the only pressure we could bring to bear would be to ask him to send a draft with the order"—a "pressure" quite sufficient to suggest moderation in demands for a readjustment of contracts. The same discipline was applied to correct the abuse of long delays in settling for orders.†

Another important advantage secured by centralized control is found in dealing with railroads and producers of materials. Many of the concerns which united to form

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* Report of Industrial Commission, vol. i, p. 1030.

† *a.* Report of Industrial Commission, Trusts and Industrial Combinations, vol. i, p. 1030.

b. Iron Age, August 31, 1899, p. 17: "The long period of depression caused a laxity in business engagements in the buyer's favor which finally developed into scandalous proportions. There was an elasticity in contracts which extended over practically every feature of their terms. On a declining market readjustments of prices at the final time of delivery were generally made. A part or the whole of quantities contracted for were canceled at the will of the buyer. Terms of payment specified were utterly ignored and settlements were dragged out indefi-

the trust, although their aggregate purchases and shipments ran up into the millions of tons, were individually too weak to secure the most favorable rates and prices. They were often subject to discriminations in favor of the large producers in the same trade. This is illustrated by the development of certain large coal-mining concerns who have taken away much of the trade of their weaker competitors by rebates received from the railroads, and the concessions in car supply, speedy delivery, and free storage on track, all of which advantages enabled these specially favored companies not merely to underbid their competitors, but, what is often of more consequence, to execute orders with despatch. The revelations concerning the relations until lately existing between the trunk lines and the Chicago packers furnish a more familiar illustration.

A similar advantage is secured by large concerns in the purchase and delivery of materials. From the inspection department of a large manufacturing concern comes the following anecdote illustrating the hardships of the small buyer: A certain order of plates had been placed with a celebrated steel company in Pittsburg. It was important that the order should be promptly filled, for it was wanted for certain machinery which had been promised for delivery at an early date. The order was not filled at the time appointed. The Pittsburg agent of the company which had placed the order called several times at the offices of the steel company, but could obtain no satisfaction. At last, in

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nitely. Contracts of the vaguest description were entered into, such as those stipulating for requirements without any maximum or minimum limits as to quantities. Abuses of this character had, under the stress of intense and often reckless competition, assumed extraordinary proportions.

"It is to the extirpation of these evils that the consolidations have applied themselves as one of the functions which justify their being. Long credits and dilatory payments are being stopped, and buyers are held up strictly to the letter of their contracts."

desperation, and stimulated by a series of telegrams from the home office, the agent resolved on a peremptory policy. Calling upon the president of the company, he informed him that unless the order was filled immediately it would be placed elsewhere. The president asked him to call the next day and receive an answer. The following morning found the agent in the president's office, where he was informed that the amount of this class of business placed with them by his company during the year had been looked up and that it amounted to just 1 per cent of their total output. In view of this fact, the president said, he thought that his company could manage to get along even if the Eastern firm placed all its orders elsewhere. "Now," said the president, "you can use your own discretion about withdrawing that order."

Similar vexatious delays are experienced by every small buyer in a time of active demand. He must wait until the wants of his more important rivals have been supplied, and waiting means a loss of valuable business which is pressing for execution. A large buyer, moreover, can make a large contract at low prices, while the small buyer is shifted about with every turn in the market. The recent advance in the price of bituminous coal offers an illustration. Large consumers, protected by their long contracts, suffered no inconvenience, but the small buyer, whose business is of little consequence to the coal company, was often compelled to pay the full advance over the prices prevailing before the anthracite miners' strike. These disabilities under which the individual concerns labored, it was evident, could be largely removed by combining them into a single organization which could obtain in its negotiations all the advantages which had hitherto been enjoyed only by the largest manufacturers.

In their relations with the jobbing trade, manufacturers are strengthened by combination. Two illustrations

of this advantage may be given: Manufacturers of hardware, under competitive conditions, have always been greatly injured on every occasion of increasing demand by the practise of large jobbers who had purchased heavily before the advance in reselling to other jobbers at prices less than those charged by the manufacturers, and also demoralizing the retail trade and interfering with the free distribution of goods, by selling at cut prices to retailers, thus preventing less fortunate wholesalers from making their usual sales and lessening their demands upon the factory. The injury inflicted upon the manufacturer by the practise of contracting ahead has been already shown in reference to the irregularity of prices resulting by this consequence of the competitive system. The reselling and underselling of large jobbers was, in the lines of furnished hardware, an evil equally serious, and was directly due to the competitive struggle, which forced the manufacturer to take business no matter how unfavorable might be the terms on which it was offered.*

This necessity of forced selling also enabled a class of jobbers to exist who secured trade by questionable methods—for example, by dividing their profits with the retailer, the result being that the best customers of the manufacturer had their profits greatly curtailed and were forced to reduce their demands, unless the manufacturer also descended to the lower level of prices and profits. On the other hand, manufacturers, in their anxiety to get business, often addressed the retailer direct. This method of distribution is expensive to the manufacturer. He must charge the cost of maintaining an extensive selling and collecting department, and of shipping in small lots against a single line of goods, no great quantity of which can be sold to any one dealer, while the jobber, handling hundreds of lines, can supply the retailer with a complete stock,

* Iron Age, January 26, p. 34, and April 6, 1899, p. 35.

charging the expense of selling against a $500 order, although the manufacturer of axes, locks, or stoves could sell perhaps only one-tenth or one-twentieth as much. It is therefore to the manufacturer's interest that the jobber be protected against such irregular methods, for the jobber is his best customer. A half-dozen jobbers will take the entire output of a nail-mill, and thus relieve the manufacturer of all expense and risk of selling and collection.

By combining and eliminating competition, these evils are abated. The jobbers can be held to small orders, and the resulting necessity of frequent purchase tends to deter them from cutting prices. They are forced to deal with the combination, and must obey the rules which it lays down to regulate their purchases. While the jobbers are held to stricter account, and prevented from competing with the manufacturer or by other methods demoralizing to trade, they are, on the other hand, favored and helped by the combination refusing to sell to retail dealers even when these order in jobber's lots, and cutting off the supply of any jobber who is detected in dividing his profits with the retailers. By confining their sales to the jobbers, the combined manufacturers can sell at lower figures for large lots, and in this way can protect the jobber in a larger margin of profit than he could secure under competitive conditions when the retail trade were given such improper advantages in buying. The elimination of competition, then, improves the relations between buyer and seller, and secures the manufacturer in a larger and more regular demand for his product.

One final advantage secured by combination deserves special notice. This is the improved position of the manufacturer in dealing with labor. From the manufacturer's standpoint the insistent demand of organized labor for higher wages and shorter hours is equivalent to a demand that the manufacturer should submit to a reduction of his

profit. These demands his business training teaches him to resist. Under the system of competition, however, in resisting the demands of his employees, he is placed at a serious disadvantage. For these employees are organized into great unions containing 20,000, 40,000, 90,000, or even 250,000 men, under the control of a single executive board, which secures a united action of the entire membership of the union upon any matter of common interest. Competition in the field of skilled labor has been largely eliminated, and well-organized combination has long since taken its place. These contests between employer and employees are unequal. The manufacturer has pressing obligations to meet by the sale of his product. In order to meet these obligations, he must fill his contracts and hold his customers. His financial position is not strong enough to permit a long-continued suspension of his plant. He is hard pressed by competitors who are doing their utmost to persuade his customers away from him. He stands alone, struggling for business with concerns whose hands are against him, as his hands are against all his rivals.

To the manufacturer in this situation comes an official of the International Association of Machinists, or of the Amalgamated Association of Iron and Steel Workers, or the Iron Molders' Union of America with a peremptory demand for a reduction of hours, or an increase in wages, or the admission of walking delegates to the shop, or the limitation of the number of apprentices, or the discharge of all non-union men. All or any number of these demands may be made upon the manufacturer. If he refuses a strike is the alternative. His men will walk out at a word from their general officers, and there will be none to take their places.

The business instincts of the manufacturer lead him to refuse an advance in wages as he would resist an increase

in the appraisal of his plant for purpose of taxation. He may feel that his men are receiving high wages—perhaps the proposition is to raise them from $3.50 to $4 per day. He looks upon the proposed reduction in hours as equivalent to a reduction of output, opposed not merely to his own interests, but to those of his employees. A demand that outsiders should dictate the management of his business he regards as effrontery. His judgment is unalterably opposed to granting the demands of the union.

Each one of his competitors may feel the same way. In the absence of competition, they would unanimously refuse to make the concessions demanded. They would even welcome a strike as offering an opportunity to break the power of the union. They would concentrate their efforts on the plants in which the union was weakest, sending thither all non-union men that could be secured, filling as many orders as possible from these plants, and appealing to the sympathy of their customers to induce them to be patient with the delay involved in breaking the strike. They would collect a large defense fund, scour the country for non-union men, educate unskilled labor into a knowledge of machines and processes, secure the assistance of the courts in protecting non-union men from interference, and, by gradually increasing their working force, they would reopen first one mill and then another. Finally the reserve funds of the strikers would be exhausted, their courage weakened by such determined resistance, their confidence in their leaders impaired, and the solid wall of their resistance honeycombed with disaffection, until, first singly, and then by hundreds, the strikers would be clamoring for reinstatement on the old terms, and the union officials, compelled to surrender to save their organization, would concede their defeat and make an abject surrender. Such would be the

usual result of general strikes were unanimous action among employers to be secured.*

Under competition, however, such unanimous action is next to impossible to attain. Few employers feel safe in standing out against the union, and thus precipitating a strike, for fear lest some of their competitors should grant the demands, keep their mills running, and get the orders which the strike prevented them from executing or accepting, and in the profits from which these suspected competitors might find ample compensation for the concessions in wages and hours which had been made to secure this increased business from less complaisant rivals. Especially with the owners of the weaker mills do such considerations have weight. They hasten to take advantage of an opportunity to secure the trade of the best mills, which are usually the last to grant the demands of the strikers. In the strike of the International Association of Machinists, in 1901, a large number of the strikers almost immediately obtained the nine-hour day, but they were most of them employed in the smaller shops, which took this easy, if short-sighted, method to fill their books with orders.

Combination was, on the foregoing account, greatly desired by manufacturers in order that by its means the menacing growth of the power of organized labor might be checked, and the manufacturers, freed from the hobbles of mutual distrust and suspicion which competition had fastened upon them, might stand firmly together against what they believed to be the unreasonable demands of the unions.†

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* The success of the United States Steel Corporation in breaking the strike of the Amalgamated Association of Iron and Steel Workers in 1901 is an illustration of the above.

† An excellent description of the struggle between a labor union and a body of competing manufacturers is given in the Iron Age during May and June, 1901, in its weekly accounts of the strike of the machinists.

Other advantages might be mentioned which influenced manufacturers toward combination: The concentration of office forces, distribution of special processes and patents, employment of the best talent to raise the standards of all plants up to the level of the best, savings in cross-freights, alliances with banks and lower interest rates thus resulting, and savings in reducing the numbers and salaries of selling agents and the cost of advertising.*

Compared with those already mentioned, however, these advantages are of minor consequence. The management of the industry has not been greatly changed. Presidents and treasurers of separate mills become district managers and inspectors of the trust. Particular markets, just as they were before, continue to be supplied in largest measure from the nearest plants. If the trust wishes to push its goods, it must advertise. Advertising is not a waste, as some professorial writers would have us believe, but a productive expense. It is of equal importance with transportation in the distribution of consumption goods. The advertisement brings the merits of the goods to the buyer's attention, and awakens the desire to purchase. The railroad brings the goods to the buyer's door. The National Biscuit Company attributes its success almost entirely to its vigorous advertising of Uneeda

* The ordinary form of stating the benefits of consolidation is illustrated by the statement of the American Car and Foundry Company: "The benefits of the consolidation will be in the saving of transportation charges on manufactured products by judicious territorial distribution of orders to plants most convenient for delivery; in a common enjoyment of patents, processes, and advantages gained by each of the constituent companies; in the saving of many duplicate officials, including salesmen; . . . in establishing central finance, accounting, purchasing, and engineering departments, reducing the thirty-two departments now devoted to these purposes to four only; in the great advantage incident to the purchasing of large quantities of material and the convenience and certainty of such supplies being received when required and of the quality desired."—Iron Age, February 9, 1899, p. 20.

Biscuit, Jinjer Wafer, and In-Er-Seal package.* The American Tin Plate Company and the American Steel and Wire Company pay large sums to a Philadelphia agency to push their roofing and fencing.

These various savings, to go no further into the discussion of matters which are now generally familiar, are no doubt important when taken by themselves, but they are of small importance compared with the benefits of the control over the consumer, the regulation of middlemen, and the increased resistance to the demands of organized labor which were expected to result from the formation of the trusts.

The control of prices, the control of labor, and the control of the middleman—these were the three main inducements to the formation of the trust, but the greatest of these inducements was the control of prices. It was in the endeavor to control prices that the pools had been formed, and that legal attacks had been risked by the early trust. The control of prices—not their extortionate advance, be it remarked—the refusal of the Steel Trust to advance its prices in the face of an imperative demand, offers forcible refutation of the charge of extortion so often and so recklessly brought against the combinations—not the destruction of demand by plundering the necessitous buyer, but the introduction of stability and certainty into all business calculations; the fostering of the small buyer whom the secret rebates of competition had threatened to exterminate; the firm maintenance of quotations in every branch of the trade; the intelligent application of the principle of charging those prices which the traffic will bear and under which the business will grow; such control of prices was the overwhelmingly dominant consideration which in-

* Commercial and Financial Chronicle, August 2, vol. lxix, p. 442. See also, for a discussion of this subject, The Place of Advertising in Modern Business, in the Journal of Political Economy for March, 1901.

fluenced the manufacturers to hearken to the proposition of the trust promoters.

Abundant evidence that the desire to escape the burdens of competition was the main incentive to the formation of the trusts, and that those evils, moreover, were the low prices prevailing, is to be found in trust prospectuses and in the evidence before the Industrial Commission. The National Glass Company was to take in "'every money-maker' in the tableware trade in the country." * The American Window Glass Company, in its prospectuses, also evidences the chief motive to consolidation. "The advantages of consolidation are shown by the increase of profits in 1898 and 1899. While the small profit shown for 1896 is partly due to the operation of a limited number of pots, it is largely due to excessive competition. In 1897, the American Glass Company (a selling agency) was formed, and its beneficial effects were at once shown. It is reasonable to infer that further economies in production will arise from consolidation which will still further increase the profits."† Mr. Daniel G. Reid, president of the American Tin Plate Company, stated before the Industrial Commission that the company was formed "for the purpose of getting together to do away with foolishness in making prices, and competition, I suppose, would enter into that, although there is competition now in the field against us." ‡ In another place Mr. Reid strengthened this explanation: "It seemed that there would be a good deal more money in the business than there had been in the past; there would be no cutting of prices, cutting down to a losing basis." # Mr. William Griffiths, a tin-plate manufacturer who sold out to the trust, stated that the prospect of monopoly was

* Commercial and Financial Chronicle, vol. lxix, p. 593.

† Ibid., vol. lxix, p. 744.

‡ Report of the Industrial Commission, vol. i, p. 885.

Ibid., vol. i, p. 884.

one of the inducements which were held out to influence him to sell.*

Additional evidence is found in the location and number of the constituent plants. It is a familiar fact, emphasized in every prospectus, that the trusts control the greater part of the output in the industries in which they are formed, 75, 90, and 95 per cent being common figures; but the implication of this statement is not so generally recognized, viz., that they follow in their location the grouping of industry which has just been described, and that they unite under one organization plants which are often thousands of miles from each other, whose only possible connection was that of competition, and where the sole reason for union was obviously the wish to avoid that restraining influence. Take the plants of the American Steel and Wire Company (on the opposite page) as one of the best examples of this transcontinental feature of the trust formation.

Observe the vast extent of territory which is here included—ten States in all, with Massachusetts and Washington at either end of the line. Other trusts show the same thing, though on a more limited scale. The plants of the American Sugar Refining Company are located in six States, including Louisiana and California. The Republic Iron and Steel Company is represented in eight States, including Alabama, Minnesota, and Pennsylvania. The American Tin Plate Company has its plants in five States,

* Report of Industrial Commission, vol. i, pp. 901, 902.

"*Q.* When these promoters visited you first in the interest of the American Tin Plate Company, did they express anything to you as to the avowed purpose of the formation of this company or trust? What was the object of the trust? *A.* Oh, yes; they gave us to understand that if the trust was formed of course it would hold absolute sway.

"*Q.* And the purpose was, then, to crush competition entirely and to raise the price of tin-plate? *A.* Of course, they would not say it in as strong phraseology, but they would say it in another way."

List of Plants forming the American Steel and Wire Company of New Jersey

State.	Name of Plant.	Location.
1. Massachusetts	Washburn & Moen	Worcester.
	Worcester Wire Company	
2. New York	Newburg Wire and Nail Company	Newburg.
3. Pennsylvania.	Consolidated Steel and Wire Company	Allentown.
		Rankin.
	Consolidated Steel and Wire Company	Beaver Falls.
	New Castle Wire Nail Company.	New Castle.
	Allegheny Furnace Company	Allegheny.
	Shoenberger Steel Company	Pittsburg.
	Oliver & Snyder Steel Company.	
	Oliver Wire Company	
	Pittsburg Wire Company	
	A. R. Whitney & Co.	Duncansville.
4. Ohio	American Wire Company	Cleveland.
	Consolidated Steel and Wire Company	
	Emma Furnace of Union R. M. Company	
	Cleveland Rolling-Mill Company	
	Cincinnati Barbed Wire Fence Company	Cincinnati.
	H. P. Nail Company	Cleveland.
	Salem Wire Nail Company	Findlay.
	Salem Iron Nail Company	Salem.
5. Indiana	American Wire Nail Company.	Anderson.
	Indiana Wire Fence Company.	Crawfordsville.
6. Illinois	Consolidated Steel and Wire Company	Joliet.
		Rockdale.
	I. L. Elwood Mfg. Company	De Kalb.
	Elwood Wire and Nail Company	
	McMullen Fence Company	Evanston.
	Laidlaw Bale Tie Company	Joliet.
	Consolidated Barbed Wire Company	
	Washburn & Moen Mfg. Company	Waukegan.
7. Missouri	Consolidated Steel and Wire Company	St. Louis.
	Laidlaw Bale Tie Company	Kansas City.
8. Kansas	Consolidated Barbed Wire Company	Lawrence.
9. California	Washburn & Moen Company	San Francisco.
10. Washington	Puget Sound Wire, Nail and Steel Company	Everett.

including Missouri, Indiana, and Pennsylvania. The Continental Tobacco Company is located in six States, and the American Car and Foundry Company in seven States. Sometimes, it is true, the organization is local in character, such as the Minneapolis Breweries Company and the Pittsburg Coal Company, or it may, for some special reason of manufacturing advantage, include plants situated in States immediately adjoining, as International Silver, International Paper, and the Whisky combinations; but, as a general rule, the trusts include plants which are so widely sundered that the elimination of competition was plainly the dominant consideration in bringing them together.*

It is true that a harshly critical public sentiment has compelled the apologists of the trusts, in justifying the right of these combinations to exist, to lay great stress upon the minor advantages, to put a labored emphasis upon cross-freights and salesmen, passing over with a few "weasel words," such as "fair," "stable" or "reasonable" prices, the control of prices which they hope to effect; but it is plain that these minor savings which have been invested with such fictitious importance are only reflections from the larger advantages of price and market regulation.† The essence of competition is the sacrifice of prices to the buyer, and the essential principle of combination is the control of supply by the seller.

* List of plants given in Poor's Manual of Railroads, 1899; heading, Miscellaneous Corporations.

† The unwillingness of promoters to admit the influence of the monopoly idea is amusingly illustrated by the testimony of Mr. Charles R. Flint before the Lexow Commission. "*Q.* Was not the primary object in securing the business of the Goodyear Rubber Company the removing to that extent the competition that you were then having to meet? *A.* No, sir. *Q.* Didn't that enter into consideration at all? *A.* Undoubtedly; the value of the business; and the fact that the Goodyear Rubber Company had a good business entered into the value of the stock which we purchased. *Q.* I am asking you directly the question as to whether the competition in the market of the Goodyear Rubber

The trust promoter, therefore, had at the outset a great advantage. Necessity had long been working in his behalf. The manufacturers with whom he dealt were convinced beforehand that his proposition, from the industrial standpoint, was fundamentally sound. Indeed, so general was the sentiment in favor of combination that leading manufacturers in every trade which it was desired to consolidate were prominent in urging upon their associates the merits of the scheme.

In some instances, indeed, the persuasive part of the promoter's task was performed for him. The American Tin Plate Company was organized, as the president of the company has been already quoted as saying, "for the purpose of getting together to do away with foolishness in making prices." * The tin-plate manufacturers, convinced that they had much to gain from getting together, held a meeting and appointed a committee to wait upon Judge William H. Moore, who had attained a considerable reputation as a company promoter, and invited him to undertake

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Glove Company was not one of the elements that induced you to purchase that factory? That admits of a categorical answer? *A.* I think —— Mr. Lexow interrupting: Was that one of the elements that entered into the consideration? *A.* I don't think so; I desire to explain that the Goodyear Rubber Company had a good business; a profitable business; that it had advantages in manufacture and had valuable patents and trade-marks," etc. The witness could not be forced by the most varied ingenuity of interrogation to answer the question as to the importance placed upon the elimination of competition by the promoters of the United States Rubber Company. (Report of Lexow Commission, p. 469.)

On the other hand, the majority of official statements dealt with emphasis upon the large measure of market control which the consolidation had attained.

See Iron Age, May 26, 1898, article entitled The Syndicates in the German Coal and Iron Industry, for a discussion of the advantages of stable prices.

* Report of Industrial Commission, Trusts and Industrial Combinations, vol. i, p. 885.

the consolidation of the tin-plate mills. Judge Moore tells the story of the invitation as follows: "I had organized the National Biscuit Company or, while I was organizing the National Biscuit Company a committee of manufacturers called on me in New York and requested me very urgently to take hold of the organization. At that time (they stated afterward) they thought I was not very enthusiastic about it. I was very busy, and I knew is was a very difficult thing to do. The result was, it was delayed two or three months. As I learned, they had meetings in Pittsburg, and possibly other places, and they came to me again. So it ran over a period of a year or a year and a half from the time they first called on me until the final organization of the company." *

The consolidation of the American Sheet Steel Company by the same promoter was also undertaken at the instance of the owners, whose situation is thus described by the Iron Age, of February 22, 1900: "It was easy to see that sheet trade was in a hopeless condition, and that something would have to be done and that very speedily. There was fear that sheets would be dumped on the market by some mills in order to realize money, and this aggravated the situation. . . . Options were again renewed, and progression in the deal was rapid, from the fact that the mills recognized the hopeless position they were in with high-priced sheet bars and very low-priced sheets."

The American Car and Foundry Company was promoted by men who were large owners of the stock of the Michigan Peninsular Car Company, a company organized in 1892, which had greatly disappointed its promoters and underwriters by failing to show the earnings which had been predicted. By uniting a number of competing plants

* Report of Industrial Commission, vol. i, p. 960. See also p. 866 for the testimony of President Reid, of the American Tin Plate Company.

with this company, it was thought that its position could be greatly improved.*

The question now arises, Why, if the advantages of combination were so well understood, did not the manufacturers form their own company without the assistance of an outsider? The answer is found in the reasons presented in the last chapter to show how difficult it was for individual landowners to assemble a coal-mining proposition. The manufacturers could not agree as to the valuation to be placed upon their plants in the new combination. As Judge Moore described it: "Each manufacturer imagines his plant is better located, better than his neighbor's; he knows it is; he has no doubt about it." †

One manufacturer has patents and special machinery which have cost him a great deal of money and by which he sets much store. He will not enter the proposed combination unless these costs are made up to him. Another manufacturer may have a large productive capacity, fifty nail-machines, for example. He may have been unable to find a market for the output of more than half his machines, but in the combination, he contends, all this capacity will become available. He therefore insists that productive capacity should be the basis on which the allotment of shares in the trust should be made. A third man, by the excellence of his equipment and the energy of his methods, has been able to run his plant at its full capacity, while his competitor, with a larger productive capacity but a less favorable location or a less capable body of subordinates, has operated only half time. The successful manufacturer contends that average sales should be the basis of allotment.

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* United States Investor, August 12, 1899, contains an extended account of the formation of the American Car and Foundry Company, and of the consolidation which preceded it.

† Report of Industrial Commission, p. 961.

Here are three propositions for the apportionment of interest in the trust: Money invested, productive capacity, and average sales. Each is entirely distinct. No one of the three can be accepted without, in the opinion of the authors of the rejected propositions, jeopardizing their interests. If money invested be accepted as the basis of apportionment, then producer A will receive $500,000 of stock out of say $10,000,000, or one-twentieth of the property of the combination, when on the basis of his total sales he would be entitled to only half this interest, or $250,000. Producer B, on his part, demands that his idle capacity be considered, while C insists that although he may have put only $100,000 into his mill, yet since his sales amount to one-tenth of the total, he should have $1,000,000 of stock. Each of the three knows the claims of the other two, and considers them to be unreasonable. There is no common ground of agreement, no basis for compromise. Two of the three must abandon their positions if the combination is to be effected.

An illustration is in place. In the manufacture of stoves a great deal of money is annually invested in patterns. These patterns are used not longer than ten years. New designs are always being introduced, and if they prove popular the demand for the old designs of stoves and ranges and the value of the old patterns is correspondingly reduced. It is, however, customary to preserve these patterns, which are usually patented, in the expectation that old styles may be revived, and also to protect against infringement. A firm in Philadelphia has preserved all the patterns of forty years of manufacturing. Now it is plain that the amount of money invested in such an accumulation of out-of-date designs is no criterion of the value of these patterns to a stove trust. A plant which had been running only five years might have only $20,000 invested in patterns, while an old plant might have spent

as much as $400,000 on its patterns, yet the sales of Plant No. 1 might exceed by $20,000 per year the sales of Plant No. 2. If the old plant insisted upon $400,000 of stock for its patterns because so much money had been invested in them, its demands could be granted only at the expense of the new plant, whose earning power is much greater. Yet such demands were made by more than one manufacturer during a recent attempt to consolidate a certain trade, and it was found impossible to persuade them to recede from their position.

It might appear to the outsider who looked at the question dispassionately that the earning power of a plant furnished the only basis for determining its value. Earning power, however, is subordinated in the minds of many people to money invested, and there is usually enough obstinacy and jealousy in a group of competitors to prevent a solution of the question along rational lines. The scars of the competitive struggle are too deep and its feuds are too ancient to induce one manufacturer to allow his rivals to gain an advantage over him.

Moreover, earning power is a variable quantity. Here is a reckless competitor who has been demoralizing the trade in a certain section by selling to the retail trade, lowering the standard of his product, and undercutting his more public-spirited rival, who has preferred to let his mill be idle for a part of the year rather than to sacrifice his business principles. If this wrecker of trade can be eliminated, the earning power of the second plant may be increased 50 per cent. Is not the owner of that plant warranted in demanding that his mill will be worth more to the trust than its present earning power would indicate?

It is next to impossible to form a trust in a caucus of manufacturers. A pool can be arranged with less trouble. A pool is a temporary organization from which

any member can secede at short notice. The ownership of each plant is in no way disturbed. When the manufacturer goes into a trust, however, his property passes out of his possession; he has sold his plant for cash or stock, and he scrutinizes with great care the terms of sale.

Out of this situation, arises the necessity of the promoter. The promoter is the outsider who offers to purchase each plant in a separate deal without reference to the price paid for the other mills. By dealing separately with each group of owners he avoids the stumbling of a mutual comparison of valuations, and can attack the proposition with some hope of success. Mr. Flint, testifying before the Lexow Commission for the Investigation of Trusts, explained the necessity for the promoter as follows: "*Q.* How can you explain to the committee the fact that combinations of legitimate business enterprises have to be made the subject of promoters' agreements—have to be placed through banking establishments in Wall Street—if they are the normal outcome of a demand of the businesses themselves to enter into combination with each other? *A.* For the same reason that men of high intelligence are needed to make treaties between the nations, particularly during periods of war. . . . *Q.* You mean it is a delicate diplomatic situation that has to be met? *A.* It is one that requires the very highest intelligence, and, as a rule, neutral parties—parties not interested, men of the intelligence and reputations to inspire unlimited confidence on the part of manufacturers, are needed to bring manufacturers together in order that they may move with the current of natural laws. . . . The advantage of a neutral party, of a banker, is that he is in a position, unlike another in the same trade, to get at the facts . . . to reduce the pretensions —the exaggerated pretensions of the manufacturers, and

bring their minds together upon a reasonable and proper basis." *

Mr. Flint has here succinctly stated the function of the promoter in the organization of the trust. "Natural law," it is true, impels the manufacturers to unite—without the existence of a strong desire for combination the task of the promoter would be impossible—but individual jealousy, ignorance, prejudice, and inertia interfere with and impede the operation of the natural law of advantage; and co-operative methods must be abandoned in order that the benefits secured by combination may be brought home to each manufacturer without reference to the stock interest that his competitor may secure.

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* New York Legislature. Commission for the Investigation of Trusts, pp. 731 and 757.

CHAPTER VI

THE PROMOTION OF THE TRUST—II

The promoter, being appealed to by the manufacturers who may have failed, as did the tin-plate manufacturers, to succeed by cooperative methods, addresses himself to the second part of his task—to secure options upon the separate plants at a figure less than the capitalized earning power of the combination he proposes to form, which difference will represent his profit. He does not work on commission; that would make him merely the agent of the manufacturers, and would be cooperation by deputy, a method as futile as cooperation direct, since each party to the agreement would wish to investigate the acts of his agent. As Judge Moore expressed it: "They (the tin-plate manufacturers) were talking originally about compensating me with a certain amount of stock, but I could not handle it that way. I had to buy the properties and own them, and handle it as I saw fit." * In short, the promoter in organizing his $50,000,000 trust had to follow methods similar to those which were employed to organize the coal-mining proposition. He was obliged to work for his own advantage, to "fight for his own hand," throughout the transaction, associating members of the trade with himself only when their cooperation was necessary to his largest success. The work of the

* Report of Industrial Commission, vol. i, p. 962.

trust promoter, in short, was to buy plants from their owners at one price and sell them to the investor at a higher price.

His first step was to estimate the probable earning power of the combination. To ascertain this earning power, the promoter had to obtain an answer to two questions: (1) What have the individual plants earned for, say, the past three years? and (2) how much will those earnings be increased by combining them into a trust? The companies threw their books open for inspection, and expert accountants were put to work upon them.*

The first question could not be answered by taking their statements from the separate companies of gross receipts and expenses. Other factors, however, must be considered, most important of which are the reserve and depreciation accounts of the several mills. Here is one company which charges the cost of new machinery to capital account, and makes an assessment upon its stockholders to pay for all machinery purchased. Another company deducts the expense of machinery from its net receipts before dividends are declared. The earnings of the first company, judging from the sums dispersed to stockholders, are much larger than those of the second company, while in reality its earnings have been much smaller. Another company may be "skinning" its plant by paying large dividends, while neglecting to keep up repairs. In the promoter's estimates, all these considerations must be taken into account. He must reduce the earnings of all the plants to a common denominator of identical conditions.

The following quotation from the Iron Age of March 10, 1898, illustrates the valuation methods of conservative promoters: "J. P. Morgan & Co., bankers, some time since secured options on the plants and properties

* This thoroughgoing method was not adopted in every instance, but it was obviously the only accurate form of procedure.

of a number of iron and steel producing concerns identified with the wire rod and wire interests of this country in a prominent way. These options are open until the end of the current month. The bankers appointed accountants to go over the books of the different concerns during the last three years, to ascertain the profits in each year and the average profits of the past three years. Expert engineers were called upon to make an appraisal of the plants and properties, their reports having gone in some time since. It is understood that the accountants, pursuing methods of their own, reached valuations in some instances considerably below those established by the bookkeepers of the companies involved. In the majority of cases, however, the options were considered fair, and are reported to be the basis of the settlement on the part of the bankers. It is a fact, however, that no one concern knows the price to be paid for the business of any other company."

The second part of the promoter's problem—to estimate the increased earning power of the combination—is more difficult of solution. The probable increase in the earning power of the combined plants depends upon a number of factors, some of which are known, while others can only be guessed at. To begin with, there are the more familiar economies of combination: (1) The centralization of offices and the dismissal of a number of high-priced officials—for example, one engineer of tests is sufficient for the eight plants of the American Locomotive Company—and this enables a considerable reduction of general expenses; (2) the saving in cross-freights—if enough trouble be taken by the accountants this can be estimated with a good deal of accuracy; (3) the lower rate of interest on discounts—the price of time money at New Castle, Pa., may be 6 per cent, while New York is charging only 4 per cent on equal security; and (4) the lower prices on materials secured by

ordering in larger quantities. These are the most important of the economies where the amount saved could be definitely ascertained.

Beyond this restricted field of certainty, however, lies a vast but ill-defined region of probability—the savings to be achieved by the centralization of management and the elimination of competition. How much can be gained by the regulation of prices, by the increase of monopoly power, the closer regulation of the middleman, the reduction in the amount of bad debts, the shortening of contracts and credits, and the withdrawal of special concessions? How much will be gained by the increased power of resistance to the labor unions, and by the improved position of the combination in dealing with railroads? How may the internal economy of the organization be strengthened by the continuous operation of the best plants during periods of slack demand, by the discharge of incompetent officials held in place by the influence of their "pull," by the thorough testing and inspection of all materials purchased, by the general distribution of the special knowledge and the patented processes of each plant, by the opening of a depreciation account on the books of mills to which it has been a stranger, by the displacement of old and worn-out machinery with the latest improvements, and by the inauguration of a system of promotion to stimulate the working force to their highest efficiency? What will be the profit from the broader policy of a new management; from the concentration of production at the points of largest advantage; from the acquisition of iron-mines, coal-lands, and blast-furnaces so as to be independent of the fluctuations in the prices of materials; from the broader market for the securities of a large company and the resulting facility of obtaining capital on favorable terms? And, of especial importance in view of recent developments in international trade, what

will be the profit from the development of the world's market?

These many questions can not be answered in even the roundest of numbers. The proposed combination, if it is managed with intelligence, will increase its profits by each one of the improvements and economies suggested; but how much is impossible to discover. The promoter, in his endeavor to estimate the economies of combination, is reduced to elastic approximations. He is not in the position of the coal promoter, the elements of whose problem lay in his hand, who worked with known conditions—the cost of mining, the profits on the company's store, the rates of freight, and the price of sale. The estimates of the trust promoter are in an unknown field. His calculations are, at best, inaccurate guesswork. He can be certain only of so much, that the profits of the trust will be much larger than the combined profits of the companies which are to compose it, and of this profit he means to secure for himself the largest possible share.

The promoter, having estimated the profits of combination, must now assemble his proposition; he must acquire the right to purchase the plants which he desires that the new corporation should own. To this end, usually with the cooperation of manufacturers who are well known in the trade, and who can if necessary vouch for his responsibility, besides enforcing his arguments by their own representations, the promoter makes the following proposition to the owners: That they would sell him the right to purchase their plants for a corporation which he proposes to organize, at an agreed price and for a definite time. The capitalization of the proposed company is to be fixed at the amount which it is believed will be warranted by its earnings, increased, as they will be, over the combined earnings of the individual plants by the economies of combination. By selling their plants to the new com-

pany, the owners could either: (1) secure a sum of cash; or (2) become stockholders or bondholders in the new company by receiving its securities in exchange for their property; or (3) sell these securities and free their capital for other uses.

The next step in the negotiations, after the owners have consented to sell, is to determine the valuation to be placed upon the separate properties. It is here that the promoter must work for his profits.* He has based the capitalization of the new corporation upon his estimate of the earnings of the combined plants. The securities which represent this capitalization he expects to sell. With the funds received, he will take up his options and equip the company with the necessary working capital. What remains out of the proceeds of the sale is the promoter's profit. Expressed in terms of securities, this is the difference between the total amount of the securities of the consolidated company and the amount of those securities given in exchange for the properties and the cash which make up the assets of the consolidated company. It is the promoter's interest, therefore, to bargain shrewdly with the owners of the plants which he wishes to purchase in order to reduce the amount of the stock and bonds of the consolidation which he must surrender to acquire these plants. His situation is, in general outline, similar to the situation of the coal promoter, similar indeed to the situation of every promoter. He wishes to buy something cheap and sell it dear. Keeping this principle in mind, it is unnecessary to do more than to sketch in outline the methods of higgling and bargaining which are followed.

The promoter usually finds at the outset that he has

* In many instances, the question of price was left open for further negotiation, the promoter contenting himself with securing from the owners some kind of an agreement to sell.

to divide his expected gains with some of the owners who are already associated with him in the enterprise and without whose cooperation he can not hope to succeed. The bargains which he makes with these men are not likely to be hard. They are usually large manufacturers, and their influence and example are potent in persuading others to enter the combination. The high figures at which their plants are put into the scheme are warranted, if not by the value of the plants themselves, at any rate by the advantage which the promoter gains from their cooperation. Another class of owners is also in a position to compel the promoter to give them a liberal share of the increased value of combination. These are the strong firms and companies who have been making money even under competition, and who, while perhaps appreciating to the fullest extent the many advantages of combination, realize also just what their position is in the trade, and how important it is to the success of the combination that their plants should be included in its list of assets. If strong competitors refuse to combine, the attractiveness of the proposition is much diminished, and unless the promoter is able to overcome their reluctance to sell, the flotation is likely to fail.

The organization of the Continental Tobacco Company, for example, was delayed several months until terms could be made with Liggett & Meyer, the large plug-tobacco manufacturers of St. Louis, whose competition would make control of the trade very doubtful. During the progress of the negotiations, Liggett & Meyer gave the promoters, who also controlled the American Tobacco Company, a foretaste of what was in store for the Continental Company if organized without them, by vigorously fighting the American Tobacco Company, carrying their competition even to the point of attempting to buy all the best tobacco in Kentucky, and so threatening to deprive the trust of its advantages in purchasing raw mate-

rial. The outcome of this struggle was that Liggett & Meyer sold out to the Continental Tobacco Company for $12,500,000, a figure representing one-sixth of the total capitalization of the company.* Mr. Carnegie's success in extorting an enormous price, estimated at over $500,000,000, for the securities of himself and his partners, is a more recent and familiar illustration of the necessity often imposed upon the promoter of dividing his prospective profits with the men who alone can make those profits a reality. Every trust promoter has had similar experiences. These valuations are often far above what the plants are worth under competitive conditions, and they are secured only because their owners know that the promoter must get them, no matter at what sacrifice.

If this scale of payment were to be kept up, the promoter, after the equipment of his company, would have nothing left of the securities with which he started. He must recover these losses, in part at least, from the owners who are anxious to sell. They have been hard pressed by the competitive struggle; they may be advancing in years; their plants are often under mortgage and in inferior condition. It is impossible that they could find purchasers for these plants, as separate concerns, for more than a small fraction of the money which had been put into them. To men in such a situation, the trust offers a haven of refuge. They are glad and anxious to come in on any terms that will relieve them of their obligations, and leave them a sum of money larger than could be secured by an individual sale.† It should be noted in this

* Commercial and Financial Chronicle, vol. lxvii, pp. 688, 787, 841, and vol. lxviii, p. 771.

† See Report of Lexow Commission, p. 370, testimony of John E. Searles, for excellent discussion of increased marketability of properties after consolidation.

connection that the salability of a mill is much increased by combining it with twenty other mills in the same line of production and disposing of it through the stock-market.* Before consolidation, the demand for a small property was narrow and uncertain. As a part of the trust, however, the demand was furnished by the speculative public of the entire country. It is also to be observed that the prospect of being left outside the combination serves to moderate the demands of those who distrust their ability to resist such powerful competition. The promoter can, in a measure, recover from the majority of manufacturers who are in the position just described, the advantage which he was compelled to sacrifice to the more important members of the trade.†

By one means and another, by alliance, persuasion, and coercion, the promoter has assembled his proposition. All the plants which he considers necessary to the trust are under his control. He has options upon an entire industry which, when exercised, will place a single corporation in control of that industry, in this way eliminating competition and increasing earning power. The question next arises, How are these options to be taken up? Will the owners demand cash for their properties, or will they be satisfied with the stock or bonds of the trust? Upon the choice between these alternatives, the flotation of the trust largely depends.

A business man is in business to sell things. As a gen-

* The sale of the Henry Clay furnaces at Reading to the Empire Steel and Iron Company illustrates the motives which lead small manufacturers to sell. These furnaces had been operated for fifty-six years by the Eckert family, but the death of one brother and the advancing age of the other made a sale advisable.—Iron Age, April 13, 1899.

† For special instances where coercion was applied, see Iron Age, April 13, 1899, and May 23, 1901. For general description of promoters' bargains, see Report of Industrial Commission, vol. i, pp. 960 and 1032.

eral rule, he will sell any of his property at a price. The promoter wishes to buy this property at a price. The price may be expressed directly in terms of money or in terms of the securities of the purchasing company. If the promoter is prepared to pay cash down, he would probably have little difficulty in buying all the plants he requires, for a sum of money less than the amount of stock which the prospective earnings of these plants, after they pass under the control of the trust, would warrant him in issuing. That is to say, he may have good reason to believe that the earnings of his proposed company will average $5,000,000 per year, a proposition whose value, capitalized at say 10 per cent, is $50,000,000. The total sum of money necessary to buy these plants may not exceed $25,000,000. It would seem that the course of the promoter is clear, and that a fine bargain is offered him. Let him pay $25,000,000 in cash, transfer his properties to his New Jersey corporation, and sell its securities for $50,000,000. This is what was done with the coal-mining enterprise already described. The trust promoter has apparently a similar proposition.

The resemblance between the small proposition and the large one, however, is only apparent. The flotation of a $50,000,000 corporation is much more difficult than the flotation of a $1,000,000 scheme. The promoter of the trust is usually unable to provide much of the cash necessary to carry out such a transaction. His only means of payment consists of the stocks and bonds of his new company. If he agrees to pay cash for any plant, he must obtain this cash by the sale of the securities which his proposed corporation is to issue. These sales must be made to middlemen or underwriters who will buy the securities at one price, expecting to sell them to the public at a higher figure. The underwriters must have compensation for the risk they assume, in the form of a

commission or bonus of stock. The larger the amount of cash which the promoter must provide, the larger is the bonus which must be given to the underwriters. This bonus is a deduction from the promoter's profits, which he tries to reduce to the lowest terms. It is to the promoter's interest that as many as possible of the owners should accept the securities of the trust in payment for their plants.

The promoter has a further reason to keep down the amount of cash required for the financing of his scheme, and this is the difficulty of obtaining from the underwriters a large proportion of the capital of the new company in cash, not so much because of its absolute amount—a large underwriting house, in return for suitable consideration, would make little difference between $5,000,000 and $10,000,000—but because a large proportion of cash requirement indicates a lack of confidence on the part of the owners in the future of the trust to which they sell their property, and is therefore calculated to inspire caution in the minds of the public to whom these bankers must eventually appeal.

Another consideration is the fact that the acceptance of stock in exchange for plants secures the advice and assistance of former owners. These men are experienced in the business, and their cooperation is one of the most valuable assets of the new corporation. Indeed, without this cooperation, the scheme is discredited from the outset. In the mind of the public, the stock of a consolidation with which the owners of the plants consolidated will have nothing to do, is worth very little.

It should also be noted that the supply of these securities, in relation to the demand, decreases as the amount accepted by the owners is increased. The stock issued in exchange for plants can, by previous agreement, be held off the market for a reasonable time, until the underwriters have had opportunity to market their holdings.

If, however, most of the plants must be paid for with cash, the supply of securities offering for immediate sale may be so large as to make it difficult to sell them at a high price. This increases the risk which the underwriters assumed; the bonus which they demand will be larger, and the price at which they take the stock from the promoter will be lower. The amount of the securities which the promoter must give up to the middlemen who furnish the cash increases more rapidly than the amount of money furnished; that is to say, if the promoter needs $4,000,000, he may obtain this amount in exchange for $7,000,000 of stock, while, on the other hand, if many of the owners refuse to receive securities and the cash requirement is increased to $8,000,000, the promoter may have to give up $20,000,000 of stock to obtain this larger sum, if indeed he is not obliged to abandon the scheme altogether.

It is true that in some flotations, notably that of the American Tin Plate Company, the promoter undertook to pay cash for every plant required,* but this case was exceptional. A number of attempted flotations, the case of American Potteries being perhaps the most conspicuous, fell through because the owners demanded too much cash. In this instance, the underwriters were willing to furnish one-third of the price of the plants in cash, but the owners demanded two-thirds, and the negotiations were dropped.†

The flotation of a trust, in short, depends upon the willingness of the owners of the individual plants to become stockholders in the consolidated company. A number of these owners must identify themselves with the new enterprise if it is to be got under way as a going concern. This cooperation need not be permanent. If they desire, after the promoter and underwriter have marketed their

* Industrial Commission, vol. i, pp. 960, 961, Moore's testimony

† Commercial and Financial Chronicle, vol. lxviii, p. 426.

securities, the other interests can also dispose of their holdings. But, temporarily at least, the trust must number among its stockholders a large majority of the former owners of its plants.

This situation necessitates such an adjustment and distribution of the capitalization of the new corporation as shall induce the owners to agree to receive its stock in exchange for their plants. The promoter fixes the capitalization of his proposed company at $50,000,000, one-half of which is 7-per-cent cumulative preferred stock and one-half common stock. The preferred stock is supposed to represent the value of the plants under competitive conditions, and the face of the common stock to equal the additional value which these properties acquire when they are combined. The significance of this division of stock it is worth while to consider.

A share of stock is a certificate of ownership in a corporation. If a corporation issues 500,000 shares, the owner of 5,000 shares is the proprietor of one-one-hundredth part of the corporation. Should the corporation sell its property and terminate its existence, the holder of 5,000 shares would be entitled to receive one-one-hundredth part of the net proceeds of the sale. If the directors of the corporation determine to distribute a portion of its profits to its owners in the form of dividends, the basis of this distribution among the stockholders is the number of shares held by each. If the sum distributed is $5,000,000, the holder of 5,000 shares would receive $50,000. Thus with the corporation which issues only one kind of stock and has therefore only one degree of ownership.

If preferred stock is issued, however, two classes of owners are created: (1) The preference shareholders, who are entitled to a certain rate of dividend, in the case of the trust stocks usually fixed at 7 per cent of the par value of the shares, which must be paid them out of any profits

distributed by the directors before the holders of the common stock receive any portion of these profits; and (2) the common or ordinary shareholders, who take what is left after the claims of the preferred stockholders are satisfied. The American Steel and Wire Company, for example, agreed with the holders of its preferred stock that they should "be entitled to receive in each year out of the surplus net profits of the corporation a fixed yearly dividend of 7 per centum, payable quarterly, before any dividend shall be set apart or paid to the common stock, but shall not be entitled to any further dividend or share of profits." This latter provision is the one ordinarily found in the trust charters, although the preferred stockholder may be entitled not merely to his fixed rate of dividend, but also to share equally with the owners of the common stock in any additional profits which may be distributed.

The preferred stockholder is placed in a position of great advantage. We hear much of the excessive capitalization of the trusts, of the issuing, for example, of certificates of ownership to the face value of $50,000,000 on property whose earning value is only $25,000,000. This excessive capitalization, however, is no concern of the preferred stockholder. So far as his interest is concerned it is as though the number of shares among which the profits are to be divided is not 500,000, as would be the case if only one kind of stock had been issued, but only half that number, or 250,000 shares. The position of the preferred stockholder is in no way weakened by the issue of 250,000 additional shares of common stock. The owner of the common stock must wait until the claims of the preferred stockholder have been satisfied.

The position of the preferred stockholder is further strengthened by the cumulative feature which his contract with the corporation contains. The significance of this

provision is illustrated by the following extract from the charter of the American Steel and Wire Company: "The dividends upon the preferred stock shall be cumulative, so that if in any year dividends amounting to 7 per cent. per annum are not paid on the preferred stock, the deficiency is payable subsequently before any dividends are set apart or paid on the common stock." That is to say, if the earnings of the corporation in a certain year are only sufficient for the distribution of $1,500,000, while 7 per cent on the preferred stock calls for $2,000,000, the preferred stockholders in the following year, in addition to their regular dividend of $2,000,000 must receive the $500,000 of back dividends before the common stock can receive any dividends. No matter to what sum these unpaid dividends on the preferred stock may amount; no matter if they aggregate $10,000,000 or $20,000,000, 40 or 50 per cent of the total capitalization, all these back dividends must be paid in some form to the preferred stockholders before the common stockholders receive any dividends. Furthermore, this preference in dividends usually extends to a preference in liquidation. In such an event "the holders of preferred stock will be entitled to be paid in full, both the principal of their shares and the accrued interest charge, before any amount is paid to the holders of common stock." *

The position of the preferred stockholder, it will be seen, as contrasted with that of the owner of common stock, is entirely secure. He is entitled to preference in dividends, his unpaid dividends accumulate to his credit, and he has first claim to the assets of the corporation in the event of dissolution.

Cumulative preferred stock has been issued, with hardly an exception, by the industrial trusts, together with an equivalent amount of common stock, the owners

* Charter of American Steel and Wire Company.

of which, as above suggested, eat of the crumbs that fall from the table of the preferred stockholder. The purpose in making such a distinction was to induce the owners of the plants on which options had been taken to accept stock in payment for their property, and in this way to lessen the amount of cash required for the financing of the trust.

The individual owners would hesitate about accepting stock for their plants if the amount of stock offered was measured by the present value of the mills plus the additional value which combination would give. May not the promoter have overestimated the savings from combination which are expressed in the number of shares which the trust has issued? If such an overestimate has been made, and if only one kind of stock has been issued, the owners who take this stock for their plants, on the basis of an agreed valuation, will suffer a loss. Suppose that they have accepted, say three-fifths of the capitalization of $45,000,000, or $30,000,000, in exchange for their plants. They are given to understand by the promoter that this $30,000,000 will pay 6 or 7 per cent in dividends, and will therefore be worth its face value either to hold or sell. The event may prove that the promoter has overstated the earning power of the combination, which is only sufficient for a 2 or 3 per cent dividend, representing a value of 40 or 50 for the stock.

The promoter does not suffer from this mistake save in the reduction of his profits. But the owners find the value of their property now converted into stock has shrunk 50 per cent. They agreed with the promoter on a value for their plants of $30,000,000 and accepted common stock in exchange at 100. This stock is now, after a supposable disappointment in earnings, worth only 50. The owners then find themselves in the position of an individual who has sold a house for $3,000 in gold, to

be paid three years from the date of sale, and who, owing to a change in the monetary standard of the country, is compelled to receive in payment paper money whose gold value is only $1,500. The owners who receive stock in payment are not allowed to throw their stock on the market. They must hold it for a considerable time. During the interval, if any mistake has been made in the promoter's calculations of profit this stock will depreciate on their hands. In view of this possibility, they demand a greater degree of security if they are to become interested in the new enterprise.*

It may be suggested that the issue of bonds might be resorted to by the promoter instead of the issue of two kinds of stock. The new corporation might give to each owner or stockholder its obligation to pay him twenty years from date the amount of money agreed upon as the value of his property, and in the meantime to pay him 5 per cent interest on the bonds. Such a course, it would seem, would give the owners the security which they required. This plan, however, is open to serious objections, chief of which is the fact that the issuing of bonds materially lessens the value of the stocks out of which promoters and underwriters are to get their profits; and also because so large

* General McNulta, testifying before the Industrial Commission, on the Whisky Trust, gave a striking illustration of a loss sustained by owners from the depreciation of their certificates: "I think they thought they were ahead for a while. In the first place, they thought no distillery could compete for the trade, big or little; it was theirs; they owned it; and in the next place, they got a lot of certificates, the value of which was probably two or three times the value of the distilleries which they represented, but it said dollars on them and they felt rich and carried them along. At first the certificates went up and up, and by and by down and down until they got to be worth almost nothing, so that they went from the poor little distilleries that they actually owned, but which produced some income for them, to a lot of paper trash that depreciated to a few cents on the dollar and finally left them out of business." Vol. i, p. 236.

an issue of bonds as would be necessary to purchase all the plants at the agreed valuations, would endanger the solvency of the corporation on every fluctuation of profits. Bonds were little used in the flotation of trusts. The trusts which were organized from 1898–1900 issued $3,343,065,000 * of stock and $440,945,000 of bonds.† When bonds have been issued, they have usually been exchanged for bonds of the constituent companies which could not be advantageously retired. The Federal Steel Company, for example, assumed $26,600,000 of the bonds of the companies whose stock it acquired.

Indeed, so obvious was the necessity of presenting "clean" propositions to the public—note the invidious significance of the word—that the promoters often went to considerable trouble to pay off all the debts, both funded and unsecured, for which the various constituent companies were responsible. It was considered of the utmost importance, in view of the immediate necessity of appealing to the public to buy the stocks of the companies, that the dividends on those stocks should not be endangered by the precedence of the interest and principal of mortgage bonds. Severe losses have been often sustained by stockholders who consented to have bonds placed before their stock. The fate of the National Asphalt stockholders who subordinated their interest to American Asphalt bonds is still fresh in memory. In some cases—the National Tube Company being one of them—the subsequent issue of bonds was conditioned upon the assent of a large majority of the holders of preferred stock.‡

* Includes the stock increases of companies organized at an earlier date.

† See Conant, supra cit.

‡ Iron Age, July 13, 1899, p. 22. Official statement of the National Tube Company. See also Report Industrial Commission, vol. i, p. 961: "Not one dollar of mortgage here exists upon any of the plants, and the stock is further protected by the provision in the charter that

Prevented from allaying the fears of the owners by giving them mortgage bonds for their plants, the promoter finds a satisfactory substitute for bonds in the form of cumulative preferred stock to which neither of the foregoing objections can apply. Cumulative preferred stock gives to its holders a prior claim on earnings which is in some respects similar to that conferred by mortgage bonds. All back dividends on such stocks must be paid before the common stock can share in profits. Just as unpaid interest accumulates to the disadvantage of the junior securities, so the preferred stockholders can assert prior claim to the profits; and in addition to all these advantages of security, they possess the usual voting power which stock ownership confers. By limiting the issue of cumulative preferred stock to the known value of the plants, the promoter is able to offer to the owners a security which they can accept in full confidence that they were receiving equivalent value for their properties.*

It is necessary, however, to make the acceptance of stock for plants even more certain. The inducement of

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no mortgage here shall ever be placed upon any realty of the company save with the written consent of at least 80 per cent in amount of the holders of both preferred and common stock."

* The manner of presenting this advantage to the owners is illustrated by the following extract from the speech of a Philadelphia promoter before the American Stove Founders, whom he was endeavoring to consolidate: " . . . you can issue preferred stock to the full extent of your investment; that is, what you have represented in plant and quick capital. I think I can state to you I could get an underwriter who would underwrite that providing you would take 40 per cent. Say in that case you would get 60 per cent in money, and 40 per cent in preferred stock, in payment for your properties. In addition to that you would naturally issue in the way of good-will at least two shares of common stock for every one of the preferred stock. That is what you vulgarly term 'velvet'; you get that as part of the inducement, and that would be issued upon the basis that shows from the economies over 15-per-cent dividend."—Iron Age, May 18, 1899, p. 38.

preferred stock by itself was not sufficient. To secure the general acceptance of stock by the owners, additional inducements must be given. The promoter must divide his profits with them. He must offer, in addition to an amount of cumulative preferred stock equal to the value of their plants, a bonus of common stock. This common stock, it will be remembered, represented the capitalization of the prospective profits of combination. Its dividends were to come from the increase in the profits of the consolidated company over the aggregate profits of the individual companies. The common stock, in other words, represented the surplus value created by the formation of the trust. This surplus value, if he had been able to pay cash for the plants, the promoter would have secured for himself and his associates. The impossibility of raising so much cash compelled him to admit the owners to a share in this surplus value, by offering them the choice either of taking cash for their plants, or of accepting preferred stock whose face value was equal to the figure named in the option, and in addition, a certain amount, usually one share, of common stock with each share of preferred.

The advantages to the owner of choosing this second alternative are obvious. His preferred stock protects him in a prior claim to 6 or 7 per cent of the net earnings, and he can either hold his common stock as an investment, and thus participate in the expected gains of consolidation, or he can sell his common stock to the public, often at a price of 35 or 40 per cent of its par value. He has received an interest in the new combination equal in value to the plant which he sells, and in addition, what amounts to a present, or bonus, of two-fifths this value in common stock, from which, if he desires, a substantial amount of cash can be realized. It was to be expected that the owners, under these circumstances, even when offered the choice

between cash and stock, in most cases would accept stock.* If they demanded cash, they might get the value of their plant. If they took stock, they got the value of their plants in preferred, and the value of the common stock in addition. The promoter could count with a reasonable degree of certainty on a general acceptance of the more attractive alternative. It may be observed in this connection that the proportion of cash payments to stock payments diminished as the number of flotations increased; the reasons being (1) a more general recognition of the profits to be made by selling bonus stock, and (2) the increase in the demand for underwriting and a consequent advance in commissions.

Another inducement employed to secure their cooperation is the offer to influential stockholders and owners, of positions as general officers or district managers of the new company. These positions carry high salaries and some distinction, and the appointment of prominent manufacturers to them not only assures the public that the consolidation will be well managed, but helps to convince the mass of stockholders in the separate companies that their interests will be looked out for by men in whom they have confidence, and who will be in touch with the policy of the new company. The promoter makes these appointments before he surrenders the control of the company. Afterward, the officers, in the absence of special contracts, must see to their own positions.

The general acceptance of the bonus of common stock as an equivalent for cash, although it could be generally counted upon, was sometimes rejected, either because the owners were in position to drive a hard bargain, or because they had too little confidence in the future of the trust to accept its securities in payment for their plants.

* See Judge Moore's testimony before the Industrial Commission on the importance of a large issue of stock for this purpose, pp. 960, 961.

The American Steel and Wire Company, for example, had to provide $15,000,000 for the purchase of plants. Moreover, the imperative necessity of presenting a clean proposition to the investor required the payment of large amounts of indebtedness, and there was finally the working capital of the consolidation to be provided.

It might be supposed that the cash, materials, and bills receivable of the constituent companies would serve as the working capital of the trust. The usual practise, however, has been for the owners to reserve these current assets in making the transfer of the property, only the plant, contracts, and good-will of the business being turned over to the purchasing corporation.* In cases when plants were owned by corporations, an extra dividend would be declared out of these current assets. In few instances did the new company get any benefit from them. The promoter had to provide the working capital, $5,000,000, $7,000,000, or $25,000,000, as the case might be. For these various purposes, even under the most favorable conditions of cooperation on the part of the owners, a large amount of money must be provided. To obtain these funds, as already shown in brief outline, the securities of the trust had to be purchased by middlemen in advance of the sale to the public who would not buy the stock until the company was organized and equipped for business. In other words, the securities of the trust must be underwritten.

The underwriter, as the name implies, insures the sale of securities at a certain price; a price which, in his judgment, is sufficiently below the price which can be subsequently obtained from the public to offer the under-

* For an example of the reservation of current assets, see the contract of the American Sugar Refining Company with the owners of the Franklin Refinery, Philadelphia, for the sale of that plant. Report Lexow Commission, p. 181, and also p. 886, for agreement to sell current assets to new company.

writer a profit on the transaction. This margin varies with the grade of security which is underwritten. A gilt-edged 3½-per-cent railroad bond may be expected to sell at 105. It may be underwritten at 98. The preferred stock of an industrial trust, whose favorable reception is less assured, and which can not be expected to sell above 80, will be underwritten at 60 or 65. The margin of safety and profit demanded by the underwriter increases with the uncertainty of the value of the security underwritten. The underwriter agrees to take the stock at the price agreed upon, if it is not sold at that price, within a certain time, for example within six or nine months.

A banking-house is usually selected to manage the transaction, and in this relation they are called the syndicate managers. The firm of J. P. Morgan & Co. have been most prominent in this capacity during recent years. The syndicate manager assumes the entire responsibility of the transaction, and in return is paid a bonus of the stock of the trust. The syndicate managers seldom assume the entire risk of the undertaking. They take a substantial share—J. P. Morgan & Co., for example, as syndicate managers of the United States Steel Corporation, were large subscribers to the $200,000,000 of underwriting—but apportion the greater part among their clients and business connection.

A banking firm, when they undertake the underwriting of a trust, prepare a document known as a syndicate agreement, which sets forth that the subscribers to the agreement agree to purchase, after a given date, at a stipulated price, the amount of stocks or bonds set opposite their names, the agreement being conditioned on a certain amount being subscribed. Copies of this agreement are submitted to the clients of the firm, and are also sent to other bankers and brokers who may themselves subscribe, and who offer the opportunity to their favored

customers or clients. By this method, a large amount of capital is placed at the disposal of a well-known syndicate manager like Mr. Morgan who can draw upon every money center in the United States and Europe for capital for some of his underwriting schemes. It has been customary for leading manufacturers in the trade which was being consolidated to take a portion of the underwriting. Indeed, in some cases, of which the American Tin Plate Company is an example, the underwriting was fairly thrust upon the promoter without the aid of a syndicate.*

The syndicate manager, having completed his subscription, arranges with the promoter for the closing of the cash options and the equipment of the company for business. Suppose $10,000,000 is the amount of cash required. The subscribers to the syndicate agreement may be called on for 25 per cent of their subscription, or $2,500,000, and the promoter or syndicate manager borrows the remaining $7,500,000 on the security of the underwriting. With a very strong list of underwriters, the promoter may be able to borrow the entire amount required, although this is unusual.

The subscriber to an underwriting agreement does not expect to remain, or even temporarily to become, the owner of the number of shares set down opposite his name. He expects that the shares will be sold within the time named in the agreement, and that, in return for a small expenditure of money, he will receive a profit, measured by the difference between the selling and underwriting prices, multiplied by the number of shares he has underwritten. Suppose the underwriter puts down his name for 1,000 shares of the stock of a certain company at $75 per share. One-

* Report of the Industrial Commission, vol. i, p. 963, testimony of William H. Moore : "Bankers and capitalists all over the country, after it was known that I had made a success of this organization, applied by wire, letter, and telegram to subscribe for the capital stock."

third of the amount subscribed may be paid in. If the syndicate manager is not at fault in his calculations, the shares will be sold to the public at $85. The subscriber to 1,000 shares will then receive from the syndicate manager a check for the amount which has been called on the underwriting—i. e., $25,000—plus $10,000, the amount of his profit. If, on the other hand, the public should not buy the full amount of stock necessary to furnish the cash required at the price named in the syndicate agreement within the time stipulated, the subscriber will be notified that he must take, say, half or two-thirds of his subscription, and he finds himself with 500 shares of stock for which he has paid $37,500.

A method of underwriting which has been generally employed in the financing of the trusts, and which is a modification of the typical form just described, is the sale of privileges. A privilege in corporation finance is the right to receive in exchange for $10,000, 100 shares of preferred stock and a certain amount, usually 100 shares, of common stock in addition. The function of the syndicate manager in this kind of underwriting is the same as in the former method, and the subscribers to the syndicate agreement need not advance a larger amount. The stock usually remains in the hands of the syndicate manager during the time of the agreement, and he disposes of it as he sees opportunity. At the end of this period, unless the duration of the syndicate is extended, the subscribers will either be called upon to make good their agreement to the extent that the shares remain unsold, or they will receive back a sum of money as return of their advances with the profits which have been made. The nature of the profit on the purchase of a privilege is the same as that of the profits on "insurance underwriting," as the method above described may be called. With "insurance underwriting" the subscriber's profits come

from the sale of the securities subscribed for at a price higher than the underwriting price. In "privilege underwriting," the subscriber makes a profit when the combined value of the two shares which he has bought is greater than the par value of one share—i. e., $100—which he has agreed to pay for the privilege of owning two shares. National Steel stock, for example, was underwritten by the sale of a privilege to buy one share of preferred stock and one share of common for $100. The combined prices of the two shares on September 12, 1900, was 111½, representing on that date a profit of $11.50 for each $100 of underwriting subscribed for and of which $25 may have been advanced.*

The promotion and financing of the trust have now been completed. The promoter organizes his company, issues the stock to owners and syndicate managers, makes the cash payments, elects the officers, places the cash working capital to the credit of the corporation, and starts it as a going concern. If he has been fortunate and skilful in his negotiations, he finds himself in possession of a large amount of stock. This stock is the promoter's profit. It is not a compensation for services rendered, but the result of shrewd bargaining with owners and underwriters. The promoter started with $50,000,000 of stock. He has bought his plants with $25,000,000. He has given $20,000,000 more to obtain $10,000,000 of cash—$5,000,000 for cash payments, and $5,000,000 for working capital. He has perhaps $5,000,000 remaining. The amount realized from the sale of this stock, less the expenses of promoting the company, represents his profit. Let us delay our examination of the financial conduct of the new corporation long enough to see how these profits are realized.

* Commercial and Financial Chronicle, vol. lxxi, p. 545.

CHAPTER VII

THE SALE OF THE STOCK—I

We come now in our inquiry to the stock-market. The promoter, unless he retains a permanent interest in the new company, must sell his stock to realize his profits. The underwriters have large blocks to dispose of, and many of the owners who have accepted stock for their plants, welcome the opportunity to release their capital for other employments by selling the trust stock which they hold. Roswell P. Flower, for example, was at one time a large owner of paper-mills, which he was instrumental in bringing into the International Paper Company, receiving stock in exchange. In the settlement of his estate, two years later, it was found that he had reduced his holdings of International Paper to one share of common and 1,000 shares of preferred.* The owners are often obliged to wait before offering their stock at public sale, until the syndicate manager, who usually handles the promoter's stock as well as that of the underwriters, has disposed of his holdings, or until the syndicate has been dissolved. Sooner or later, however, a large amount of the owners' stock is certain to come into the market, unless the business becomes so large as to make the trust stock the most attractive line of investment open to former proprietors; in which case, as the leading wire manufacturers

* United States Investor, March 17, 1900.

are reported to have done when the earnings of the American Steel and Wire Company proved to be unexpectedly large, they may not only retain the stock which they still hold, but even buy back what they have disposed of. As a general rule, however, the shares of the trust must be sold to the investor or the speculator.

At the outset of our discussion, we must distinguish between the investor and the speculator, and we must also formulate a working classification of buyers of securities in order to determine what kind of a man it is to whom the syndicate manager makes his appeal. Both the investor and the speculator are so called because they buy shares in companies which are the owners of productive instruments, such as land, mines, railroads, houses, and factories. By means of the corporation which divides its stock or debt into shares or bonds of $50, $100, or $1,000 each, and which is managed by officials elected by the stockholders, an individual can buy into an industrial concern up to the amount of his capital; he can become part owner or part creditor of as large a number of industrial concerns as his capital will permit, without identifying himself with the management of any of these corporations, and with no concern in these industries save to receive out of their earnings his semiannual or quarterly dividends or interest; or he may increase his capital by selling these securities, should they advance in price.

According as they exchange their funds for interests and properties whose value can be determined by some demonstrated earning capacity; or purchase an interest in uncertainties, hoping to gain a profit by taking advantage of price fluctuations due to shifting judgments of value, do we classify the buyers of securities as investors or as speculators? The investor buys after making a judgment of value based on the demonstrated earning power of the property. The speculator buys a prospect; he

seeks to control a property the value of which is destined to fluctuate widely.

Broadly speaking, there are only two classes of enterprises, and therefore two kinds of securities: (1) Those which have been in existence a sufficient time to enable a judgment to be made of their earning power; and (2) those which either have not yet been developed, or whose active life is as yet too short to allow such a judgment to be formed. The value of a security is the capitalization of the income which the security produces. We may therefore express this distinction between securities in another way, and distinguish between those whose value is certain because based on known conditions, and those whose value is uncertain, and therefore speculative. Unless the value of a security is known, that security is not entitled to rank as an investment.

An investment is illustrated by the stock of the Pennsylvania Railroad. For the last fourteen years, its dividend has not fallen below 5 per cent. The road has always earned more than it paid to its stockholders. In 1901, for example, the net earnings of the Pennsylvania Railroad were probably not less than 18 per cent on its capital stock, 12 per cent more than was paid out in dividends. The Pennsylvania, moreover, has the reputation of being one of the best-managed railroad corporations in the United States, and it runs through the most populous and wealthy portion of the country, which insures the maintenance and growth of its traffic. Owing to these and other considerations of advantage, the investor who buys Pennsylvania can be certain that the earning power of his security will not decline. There is no probability that within the next twenty years Pennsylvania will pay less than 5-per-cent dividends.

A speculation is illustrated by the stock of the Lucky Chance Oil Company of West Virginia. This company

owns one hundred acres of land in the Beaumont field immediately adjoining the "proved land" of the Spindletop district, and proposes to dig a well. It points to the location of its property, and argues from this location to the strong probability that its proposed well will prove a "gusher," earning large profits for its owners. Its directors and promoters are men of no previous experience in the oil business, and of limited means, although their reputations are good. The stock is offered at $10 per share. Here are all the elements of a speculation which may, or may not be good. Oil is being produced in Texas at a good profit. The property of the company is evidently near the reservoir of oil. If oil is discovered it can be produced at much less than the market price. So much can be said in favor of the proposition.

But on the other side stands a battalion of possibilities, the realization of any one of which will prevent the enterprise from becoming profitable. The well may prove a "duster" or dry hole. If oil is struck, it may be in unprofitable amount. The flow may cease after a short time. The company may not be able to store and transport its oil. The production of other wells may glut the market and break the price. The officials may prove incompetent or dishonest, and may either involve the company in credit obligations or run away with its funds. These are the more important doubts which immediately arise as to the future of the new enterprise, whose securities may, therefore, be considered as illustrating the most extreme form of speculation.

Between the stock of the Pennsylvania Railroad and the stock of the Oil Company, there are all degrees of stability, and it is difficult to sharply divide the sheep from the goats. For our present purpose, however, it is sufficient to distinguish those enterprises which have already succeeded or whose success can be confidently pre-

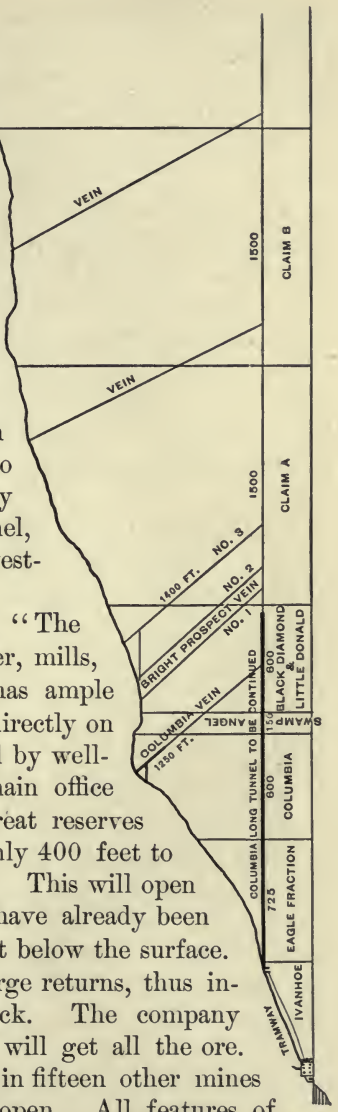
dicted from the experience of similar enterprises operating under conditions generally identical—as, for example, the introduction of rapid transit into a town—from that much larger number of schemes whose success only the future can reveal. The distinguishing characteristic of a speculation is the fact that its value depends upon circumstances which can not be known because the future is needed to reveal them. An investment, on the other hand, contains no "ifs" or "provideds" or "reasonable certainties." Its value is founded upon certainty. A speculation is built upon the shifting sands of probability and supposition.

Let us examine more closely into the nature of a speculative enterprise. The Bright Prospect * Tunnel Company has recently been organized for operations in the Ainsworth camp in the West Kootenay mining district of British Columbia. The company has secured five claims lying directly back of and adjoining the Columbia mine, which is stated to be "one of the greatest, most economically worked mines in the world." This mine is fully equipped, and has been for some time in successful operation, making large profits for its owners. The sum of $150,000 is stated to have been spent upon its development. A peculiarity of the operation is the fact that the company has developed the Columbia vein by means of a tunnel cut through the mountain at right angles. This makes the mine self-draining and saves the expense of hoisting. It also proves, in the language of the prospectus, "that the veins in the Ainsworth camp are rich, persistent with depth, and that they are of high commercial value at a distance of 1,200 feet from the surface."

The Bright Prospect Tunnel Company proposes to profit by the experience of the Columbia Company. It proposes to extend the Columbia tunnel from 1,850 feet, its present length, to 2,250 feet, cutting Bright Prospect

* The real names of these companies are withheld.

veins Nos. 1, 2, and 3, which lie, as already stated, directly back of the Columbia vein, and which have been proved by surface operations. The nature of the proposition may be illustrated by the accompanying diagram taken from the prospectus, which shows the formation which the promoters of the Bright Prospect Company believe exists. Observe how the four veins run parallel with each other, and how easy it will be to cut the Bright Prospect veins by extending the Columbia tunnel, which is already a paying investment.



The prospectus concludes: "The company has ample water-power, mills, and tramway available. It has ample timber on the ground. It is directly on transportation. It is managed by well-known Philadelphians. Its main office is in Philadelphia. It has great reserves of ore in sight. We have only 400 feet to run the tunnel to cut the veins. This will open the great bodies of ore, which have already been proved at a depth of 1,300 feet below the surface. It will make immediate and large returns, thus increasing the value of the stock. The company owns five claims from which it will get all the ore. It is guaranteed a half-interest in fifteen other mines which it will cut, drain, and open. All features of

risk have been eliminated. The Bright Prospect Tunnel Company is now a business proposition, under honest and economical management, entirely free of floating or bonded indebtedness." *

In view of the certainty of large profits here represented, one would suppose that the appeal for funds should be made to the large investor who would be anxious to put his money into such an attractive enterprise. We are, therefore, surprised to learn that "the stock is divided into 1,000,000 shares of the par value of $1 each," and that 300,000 shares have been set aside for sale, the proceeds to be applied to the extension of the tunnel. We are equally astonished to find that the company is marketing these shares in small lots wherever possible, not disdaining to bring their subscriptions within the reach of the humblest.

This appeal to the general public is the more strange when we remember that if "all features of risk have been eliminated" to the satisfaction of the investor, as the prospectus claims, there would be little difficulty in raising the money needed among a small number of capitalists. The following quotation from the Iron Age of March 16, 1899, is of interest in this connection: "Some prominent Pittsburg capitalists, including H. W. Oliver, A. W. Mellon, P. C. Knox, Charles Lockhart, and others, have taken interest in the ship-building plant that is being organized by Henry G. Morse, formerly of the Harlan & Hollingsworth Ship-building Company, and also the Edge Moor Iron Works of Wilmington, Del. It is stated that the company will be capitalized at $12,000,000, and will erect large shipyards on Chesapeake Bay. It is also stated that no subscriptions less than $50,000 have been accepted."

Why could not the Bright Prospect Tunnel Company

* Extract from prospectus.

place its stock in the same manner? Generally speaking, a corporation has a better chance of success if it places its stock with a small number of wealthy men who can make further subscriptions if these seem desirable, who can indorse the notes of the corporation, and can advise its officers in business matters. It is a disadvantage to a company to take in a large number of stockholders who have no financial standing, whose advice is worth nothing, and whose only interest in the company is to get dividends from its treasury at a time when every dollar is needed for purposes of development. Why, then, do we find the Bright Prospect Tunnel Company, as well as hundreds of enterprises much less reputable, peddling its stock in retail quantities? The answer to this question explains the method of selling stock adopted by every speculative enterprise.

The profits of this company depend on the realization of doubtful possibilities, and for this reason no conservative investor will put his money into its treasury. Notice the objections to the proposition. Who can be certain that Bright Prospect veins Nos. 1, 2, and 3 parallel the Columbia vein? A mountain is not as transparent as a diagram, and veins of minerals have a habit of changing their course. How can assurance be given that the veins are of equal richness with the Columbia veins? The writer knows of a party of San Francisco capitalists who put a large amount of money into a shaft not one hundred feet distant from a gold-mine which was producing $10,000 per month at the time. They were investing on the assumption that another vein of equal richness would be struck. The surface indications seemed to point to that result. But, as has happened in many similar instances, the second shaft discovered no ore, and none of the money was recovered. Is it not reasonable to suppose that the Bright Prospect Tunnel Company will be similarly dis-

appointed? How much will it cost to drive the tunnel? What about the character of the rock and the danger of encountering underground springs or streams, which would increase the expense, if not defeat the enterprise? These and similar objections can be raised by a conservative investor against such a proposition.

The investor will not buy a security whose value is in any way doubtful. He demands in a stock or bond, before anything else, the virtue of stable value. He must be reasonably certain that his principal is safe, that he can at any time in the future, barring the temporary fluctuations of the market, sell his stocks or bonds at the price he paid for them. If this assurance of the safety of his principal can be given him, he will be satisfied with a moderate per cent of dividend or interest. There are few investments offered for sale on the New York Stock Exchange whose price compared with their yield shows a return of more than 4½ per cent. If the dividends are 8 per cent on a par of $100, as with Chicago and Northwestern stock, the price is likely to be 257, which represents a yield of only 3.1 per cent on the investment. The investment demand can be depended on to fix the value of every safe security, no matter how high may be the return upon its face value, at a figure which will allow to the purchaser only a small return upon the money invested.

So thoroughly is this principle established that an investor, in the absence of confidential information that the security possesses elements of strength unknown to the public, will seldom buy a stock or bond yielding him an unusually high return. If a stock sells at a price which returns 7 or 8 per cent on its purchase, the fact of this extra yield is considered by the investor as *prima facie* evidence of the insecurity of the investment. It is a fixed principle of investment that the risk increases with the yield. This is not because of any danger inherent in a high return,

but because experience has shown that only those securities which are in such demand that their price always advances with the increase of their dividends, so as to keep their net yield below 4½ per cent, are entitled in the long run to rank as safe investments.

The most considerable investors in the United States are the financial institutions: the banks, trust companies, and insurance companies. Their funds, in so far as they are not employed in current transactions, are invested in high-priced stocks and bonds. These institutions demand safety before every other consideration. Besides the financial institutions, there are the executors of estates and the managers of trust funds, who are held to strict account for the execution of their trusts and who are usually careful to buy only the best securities, and there are the vast majority of the wealthy and well-to-do people of the country whose chief concern is to keep what they have, and who demand of the securities into which they put their surplus income the highest degree of safety and stability.

The investor will buy Government bonds, well-secured railroad bonds, or guaranteed stocks; the municipal bonds of large cities; the bonds of street-railway, electric-light, or gas companies of the large cities, or of smaller municipalities if he is able to keep an eye on his investment, and he will also buy the best grade of railroad, street-railway, or gas stocks. Stocks of oil and mining companies he usually lets alone.*

Let us now examine the stocks of the industrial trusts to determine whether, when they were offered for public sale, they were entitled to rank as investments. In an

* It is not contended that the enumeration either of investors or investments is more than an approximation, but it will serve for our present purpose, which is to fix the investment status of the trust stocks and of those who buy them.

editorial under date of August 15, 1900, the Wall Street Journal submits a list of questions from the answers to which the buyers of securities may form an opinion as to the investment standing of the trust stocks. The substance of these questions is as follows:

1. What were the plants able to earn on the average for the five years preceding the combination?

2. What would this amount have paid on the present amount of stock?

3. How much have expenses been reduced by consolidation?

4. How much have gross earnings been increased by consolidation? *

5. What will the combination have to earn net in order to pay 7 per cent on its preferred stock?

6. How much in excess of that amount is the company earning now?

7. What is the amount of the net floating debt?

8. How is this floating debt secured?

9. Is the corporation hampered by burdensome contracts?

10. Can it enforce its own contracts with buyers?

11. What is the extent of the competition encountered?

12. What is the possibility of reducing operating expenses?

13. Is the management in every way competent and satisfactory?

Here is presented an outline for an investment judgment. If these questions can be fully answered, the investor can determine with some accuracy whether the trust stocks can be safely purchased. If the trust has a large annual surplus of profits over its dividends, declared or required; if its unsecured debt is kept within manageable

* Not in the Wall Street Journal's list.

limits; if the reports of its physical condition, its earnings, its assets and liabilities are frequent and circumstantial; and if it has maintained by wise and energetic management a dominant position in the trade, the investor may safely put his money into its stocks. His security would not be as good as the security which a general mortgage bond would give him, but he would receive a higher return, probably 5 or 5½ per cent, and by carefully watching his investment he would be tolerably safe against loss. If the syndicate manager can give him the information asked for, and if the condition of the new corporation is shown to be satisfactory, an investment demand will spring up for its stocks.

But all of these questions can not, in the nature of the case, be answered. The trust has just come into being. If the promoter has been frank with the public, the net earnings of the plants for the preceding three years are given in his prospectus. It may appear that the amount of preferred stock issued is warranted by the net earnings, and this, be it noted to the credit of the promoters, has been usually true of their preferred stock issues. But this fact only answers two out of thirteen questions on which the investor must have information before making a conservative judgment. The remaining eleven can not be answered for perhaps five years, or until the trust, in a period of industrial depression, has proved the strength of its organization and the skill of its management. The trust, at the time its stocks are offered for sale, has no expenses to reduce; it has not attempted to increase its earnings; if it has a floating debt, this is composed of the unsecured debts of underlying companies—not usually published—in the new company there has been no occasion to incur debt; the value of its contracts and its power over buyers must be determined by future experience; the strength of the competition is uncertain, and the quality

of its management under these new conditions has not been determined. The prospective investor is left in the dark concerning these matters. There are great speculative possibilities in the trust proposition, but he can not make an investment judgment as to the probability of their realization.

The investor, moreover, when he looks into the merits of the trust stocks, is confronted with many doubts and fears. What will be the attitude of the public toward the trust? Will its management be left unhampered to work out the possibilities of reduced expenses and more stable prices, or will the cry of monopoly be raised and popular sentiment take hostile form in special taxes, reduced tariffs, or assaults upon the corporation's right to exist? Will the public pay higher prices, or will they purchase cheaper substitutes? Has not the corporation, in issuing cumulative preferred stock, endangered its surplus reserve by the compelling necessity of paying dividends on the preferred in order to protect the common? These are some of the considerations, in addition to the lack of most of the information on which he has been accustomed to base his judgment, which warn the conservative investor not to buy the trust stocks.

Even the preferred stock, based, as its value is supposed to be, on past earning power, is not assured of dividends in the future. A new management has been placed in control, and this past earning power may not be sustained; and bonds or floating debt may be placed ahead of the preferred stock to absorb the earnings which were to go to that security. The cumulative feature, for which so much has been claimed, may prove a source of weakness rather than strength. If unpaid dividends accumulate, the value of the common stock may be obliterated, and this may seriously damage the financial standing of the company. It may even, at a critical moment, deprive the corporation

of a loan which would have saved it from bankruptcy. As for the common stock, burdened as it is by the extraordinary advantages which are given to the senior security, it has nothing to commend it. If the investor can not safely invest in the preferred shares, he will certainly have nothing to do with the common.

The syndicate manager can not count upon selling his stocks to the investor who buys only on the satisfaction of an intelligent judgment, either his own judgment or that of his broker or banker, that the stocks into which he puts his money will yield a certain and stable return, and above all, that he can be certain of selling the stock for the price at which it was purchased. No such claims can properly be made for the trust stocks. Their dividends are uncertain, prospective, problematical. They start with bright prospects, it is true, but these prospects may never be realized. The conservative investor will have none of them.

Cut off from recourse to the investment demand, the syndicate manager makes his appeal to the speculators. They are usually persons of moderate means who are willing to buy the shares of new companies at low prices, trusting in the representations of those who have stocks to sell, that these stocks will pay large dividends and eventually increase in value. The speculative buyer has usually no knowledge of finance. He does not understand the nature of an investment judgment. He thinks of a stock as $100, and regards its dividends as certain and permanent. He has no skill in offsetting advantages with disadvantages. With him a security is either good or bad. There is no half-way point. If the syndicate manager were to set before him all the materials for an investment judgment of the trust proposition, he could not make such a judgment. If, moreover, the difficulties and uncertainties which deter the investor from buying trust stocks were presented to the speculative buyer, he would be fright-

ened away. If these negative considerations are not presented, however, he will not ask for them nor will he suspect their existence. Great care must therefore be taken to give him only the most simple and favorable information concerning the stock which it is designed that he should buy. The "public" ask few questions—save as to the standing of the officers of the new company, for they naturally do not want to be robbed—and the amount of dividends which is promised to its stockholders. It is from this class of buyers that a portion of the funds which are to reimburse the advances of the underwriter are to come.

There is, it is true, another method which might be suggested in such cases, and which, if successful, would have enabled the trust stocks to be sold to the investor. The promoters and underwriters might hold their stock, and so forego taking their profits for three or five years, and they might require the owners to do the same. At the end of this period, if the calculations of the promoters to which the underwriter has fixed his indorsement are proved to have been accurate, the securities which have been held off the market pending this verification can probably be sold to the investor at good prices. The corporation law of Germany attempts to secure this confirmatory delay by prohibiting the listing of shares on the exchanges until one year from the date of the organization of the company. A longer time is probably needed to establish a new form of industrial, such as the trust, in the confidence of the investor.

This delay, however, although desirable from the standpoint of conservative investment judgment, is not contemplated by the financiers of the trust. Not only would it be unreasonable to demand of them such a degree of self-denial, but the enforcement of such a regulation, it is safe to say, would make impossible the financing of speculative projects on a large scale. The underwriter would demand

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a prohibitive commission, and the promoter would have little inducement to bring forward large projects, if both interests were obliged to wait for several years before selling their stocks. To require such a delay, moreover, would be to destroy the function of the underwriter as the retailer of speculative securities from the promoter to the public. It would compel the underwriter, if he put his money into any project, to regard it as a permanent investment; that is to say, to abandon his character of banker, and assume that of investor, whose profits, at least for several years, must come from interest or dividends. As an investor, however, the underwriter would demand the information necessary to an investment judgment, and this information the promoter of a new form of enterprise, such as the trust, is usually unable to furnish.

We are brought, therefore, to the conclusion that the financing which was necessary in the formation of the industrial trusts could not have been secured if those who furnished the cash had been required to realize their profits from selling the securities which they received to the investor who demands the conviction of safety before parting with his money. Or, to put the matter in another way, underwriters, as prudent men, will not voluntarily put their money into the stocks of the industrial trusts without a reasonable certainty that these funds can be recovered with a profit in addition by selling the stocks to the general public. In short, the underwriter asks the public to buy stocks for investment which he would not buy himself. Only in this way, to repeat, can money be raised for new and risky projects.

The main recourse of the syndicate manager of the trust is to the speculator, and he is fortunate that he can draw upon a reservoir of funds which is sometimes full to overflowing. The methods by which he exchanges his trust stocks for cash we have now to consider.

CHAPTER VIII

THE SALE OF THE STOCK—II

The first step in the process of selling stock to a speculative buyer is to excite his imagination. There must be placed before him a picture of enormous wealth in which he is invited to share. In actual existence as yet there is nothing save a flat plain, a precipitous mountain, or a prospect of monopoly profits. The investor must furnish the money to ascertain what lies below the surface, and if there is anything found, to develop it. But in order that the investor shall advance these funds, he must be made to disregard the present and project his gaze into the future. He must behold, as does one in a vision, a fully equipped mining property or oil-well, and he must see himself as part owner of this valuable property. In view of this necessity, the general arrangement of a prospectus, no matter of what enterprise it treats, is always the same.* The project contains some new feature—a new resource, a new invention, a new form of industrial organization—oil-lands in California, copper-land in Arizona, real estate on the frontier of Brooklyn, or options on competing plants. The development of these resources and opportunities is to be followed by large earnings.

* In preparing this chapter, the writer made use of a large number of prospectuses collected during several months as advertised in newspapers and magazines. Out of respect for the feelings of those directly interested, references are not given for the quotations which appear in this chapter.

The reasons for this belief are forcibly set forth in a prospectus. The mine is either directly adjoining a fully developed property which is paying large dividends, or the geological indications point unmistakably to the existence of a resource of great value. Similar enterprises in other parts of the country have proved enormously profitable. The present scheme is fundamentally identical with these enterprises. Therefore the present scheme will be equally successful.

A mass of expert testimony of this or that "professor," whose wealth of technical detail is most convincing, is usually added. Note, for example, the following extract from An Expert's Opinion of the Monterey District: ". . . The geological formation of the oil-bearing strata and extensive surface indications of petroleum seem to indicate the certainty of there being productive resources of oil below. Sandstone and shale of a bituminous character seem to be the general surface indications of petroleum. There are apparently three anticlinal ridges extending through this range which the oil belts seem to follow. . . . Judging from the croppings, the west side of the Salinas Valley contains a vast oil reservoir. I have formed this conclusion on account of the immense depth and thickness of the oil-bearing sands and also the immense beds of bituminous shale." Perhaps the "professor" has a record of success to enforce his statements. He may "stake his reputation" on the success of this last project which he indorses, and which he believes to be "far richer than United Verde"—a mine which paid $2,924,000 in dividends in 1901.

Accompanying the experts' reports will be maps and charts showing the exact location of the property, if the proposition is for a mining or oil enterprise, in relation to producing mines or wells, these latter being always in the immediate neighborhood of the land of the new company,

or else "the geological formation on this claim is identical with that found on the largest dividend-paying properties in the districts." The National and State Geological Surveys are dragged in to support the expert testimony.

Newspaper accounts of the "fabulous richness of the Kootenay Country," or "Wonderful Tonopah, a Desert Camp of Fabulous Richness," written for local newspapers, or the more sober narratives of the metropolitan journals, also excite the imagination of the speculator. Notice the following news item printed in a New York paper of last winter: "Nevada, January 27.—At the Tonopah camp the most impressive things are the huge stacks of ore awaiting shipment. Henry Cutting, who came into the camp early last year with only $2.50 in his pocket, has one stack which is estimated to be worth $500,000. Another man who had been very lucky is Frank Golden, who has a great stack of sacks of ore like a fort, which is worth $700,000."

Strongly worded testimonials may be added to the schedule of evidence. The project is backed by substantial business men, often by men of national reputations—won in some other field—who publicly advise their friends, as did an ex-governor of a Western State, to "provide for the children" by investing a few dollars in rubber certificates. The best of bank references are also given.

All this mass of skilfully arranged data leading the mind almost imperceptibly from the known to the unknown, emphasizing advantages to the point of exaggeration, glossing over difficulties or preferably remaining silent about them, marshaling history, science, and reputation to the support of prophecy—all these specious and forceful arguments are directed to the end of creating in the mind of the prospective buyer a vision of enormous wealth. It is but seldom that they fail to accomplish the

result. If it were possible, a sympathetic examination of their literature would deceive the very elect.

Cupidity is the next passion to which the promoter appeals. The stock in these companies whose prospects of large profits are so well assured, is offered at a low price, 50 cents, $1, or $2.50 per share, some indeed as low as 5 cents a share. The company issuing the stock, it is stated, is in possession of a resource of enormous value. Only a small amount of money is needed to develop the mine or drill the well—"In order to facilitate the development of the valuable lands of this company, the directors have placed on the market a limited amount of its treasury stock to be sold at the special introductory price of 20 cents per share, and the company reserves" —mark this, opportunity only knocks once—"the right to advance the price of the same without notice." After the initial expenditure, it is claimed, the enterprise will grow out of its own earnings.

And its assured dividends! "Marvelous and monstrous" is the only phrase that adequately describes them. It is a poor company that can not assure the investor 20 per cent on his money. Note, for example, the following: "The value of this stock as an investment may readily be seen when it is understood that one well producing 100 barrels of oil daily will earn 4 per cent on the entire capitalization, or 20 per cent on the present selling price of the stock." The company in question had room for 150 wells on its property, and the inference of the prospectus is that dividends of 1,000 per cent on the investment are by no means out of the question.

Does the investor ask for conclusive evidence that these huge dividends will be paid—let him look to the record of other enterprises which had at the outset no better prospects than that into which he is asked to put his money. "In one instance, about one and one-half years

ago, $1,200 was invested in three sections of oil land in one oil district. To-day these same lands are worth $5,000,000. In another instance $3,200 was invested in two sections. To-day these two sections are worth $6,000,000." Specimen advances in oil stocks are given—for example: "The New York Oil Company sold at 50 cents per share, present market price $200"; or, "the Home Oil Company sold at $10 per share, present market price $5,000." Or, if the proposition is in gold or copper mining, figures like this are given: "United Verde once sold for 50 cents a share and is now paying nearly 8,700 per cent on that price. The Le Roi Mine was sold entire in 1890 for $12.50; it now has a market value of $10,000,000—$100 invested in Le Roi a few years ago is now worth $250,000 and has paid $35,000 in dividends. Alaska Treadwell has paid $5,000,000 in dividends and its stock has advanced 3,200 per cent," etc., etc. Evidence of this character is abundant and effective.

If doubt is expressed as to the future demand for these products even should they be successfully produced, the prospectus is ready with assurance that "the development of California will demand all the oil that can be produced," or "the electrical industry will continue to exhaust the supply of copper." Nothing is left uncovered. Every detail is attended to. A chance to draw a valuable prize is offered at a low price.

The whole argument is summed up with convincing brevity by a copper prospectus. "Bell Telephone was given away for board-bills, yet has paid over $36,000,000 in dividends. Calumet and Heckla went begging not so many years ago; its total dividends to date are over $60,000,000. It would take a day to enumerate the instances where properties rich and great to-day were offered for a song. The people who did buy them are rich now, and why? Not because they were 'lucky,'

but because they investigated promptly, judged the merit of the proposition, and acted while there was time. If they had waited until to-day to buy the shares of these enterprises they would get perhaps 5 per cent on their money, possibly 8, but no more. But buying when they did, they got all the way from 50 per cent a year, up to 500 per cent, because they had both the judgment to recognize the worth of the opportunity and the courage to seize it. A thorough examination of the details of the Arizona Copper Syndicate will satisfy any man of judgment as to its merits. It is one of the greatest opportunities ever given investors. Investigate it now while the price is low."

Here are the principal inducements offered to the speculator in every new enterprise. Other men have made money in similar enterprises. Why should not he be equally fortunate? He is not asked to gamble, but merely to investigate an industrial opportunity and act as his judgment directs. He is carried away by the prevailing optimism of the time, and he is ready to listen to the advocates of new schemes for getting rich. Other people are making money fast, and he is certain of his ability to do as well as they. The appeal to his "judgment" and his "courage" is the bit of flattery which is often decisive, and the final outcome is that the man of small means invests $100, $200, or $5,000 in the stock of a new company in the confident expectation that from this small investment he will one day reap a fortune.

When once embarked on a doubtful enterprise, the investor is impelled by sentiment and interest to draw others along with him. The speculator is by instinct a promoter. He is zealous in his advocacy of the project to which he has committed his money. He urges upon his friends the merits of the new scheme. His enthusiasm is infectious. Others are drawn into the net by his representa-

tions, and they in their turn compass sea and land to make one proselyte. In this way the wave of speculation is set going and sweeps through all classes of society, turning the accumulations of years of effort into the treasuries of the new companies.

The situation is universally familiar. A minister or a physician has a few thousands laid by, a woman has either saved or inherited a small amount, a workman or a farmer has managed to scrape together something for a rainy day. Such people are found by the thousands in every part of the country. From their accumulations they draw a small rate of return, often so small that they are constrained to add it to the principal, and do not venture to apply it to expenditure. Four or five per cent clear gain is about all that can be expected. Their lives are hard, monotonous, and barren. Before their eyes is constantly flaunted the luxurious extravagance of the wealthy leisure class. To such people the prospectus of a new enterprise is wonderfully attractive. In exchange for a few thousands it offers them a fortune. The offer dazzles them. Their desires benumb their judgment. The risk of the undertaking is forgotten. Few of those who put their money into a speculative scheme enter it with the thought of risk. The calm balancing of chances is the exercise of a superior order of mind. The speculator does not buy a chance, he buys what he thinks is a fortune. He has had a vision of a vein of ore or a great reservoir of oil. He has seen a populous town arise around the factory in which he has invested. He has forsaken the difficult paths of reason for the flowery fields of imagination and conjecture.

The line of speculators is very ancient. In 1720 there was printed for W. Bonham, in London, "an argument proving that the South Sea Company is able to make a dividend of 38 per cent for twelve years, fitted to the meanest capacities." This was one of the first pro-

spectuses ever issued, and the succession has been worthy of its ancestor: Spanish Jackass Company, Louisiana Bubble, South American Bonds, American Improvement Bonds, English Railways, American Railways, American Mines, South American Railways, Australian Railways, Rand Mines, American Industrials—John Law, Hudson, Barnato, Hooley, Gates, and Lawson. The line runs true. The Jackass Company still lives.

The foregoing presents in brief outline the methods of selling stock in an enterprise which is on its face so dangerously risky as to require the most spectacular representations and the most flamboyant promises in order to work the speculator up to the point of shutting his eyes to the risk and going in on faith alone. Hundreds of these companies are floated every year, and their promoters often find good markets for their wares. Most of these promoters are honest. They expect to spend a large part of the funds entrusted to their care in the exploitation of the resource or opportunity which they control. A minority are fraudulent. But, one and all, they must, in order to float their schemes, appeal to the imagination and the cupidity, and blindfold the judgment of the people who buy their shares. All that they can properly offer is a chance in a lottery in which there are few prizes and many blanks.

But how do the foregoing statements apply to the question in hand? The industrial trust is a very different enterprise from the Arizona Copper Syndicate. There is apparently nothing in common between them. The syndicate manager of the trust is a great banker whose name is a certificate of reputability. He fathers no wildcat schemes. The man with "sixty acres of oil land adjoining the land of the Standard Oil Company" would get no recognition from the head of the underwriting syndicate. His appeal is made to the "investor," not to the

oil or copper speculator. The trust promoters have organized the wire-mills or the paper-mills of the United States into a great corporation whose constituent companies have already succeeded in their individual capacities and whose profits must be far greater now that competition has been eliminated. There is no manner of doubt about it. Here are the properties; their value has been carefully investigated by expert accountants, and the economies of combination are known. The underwriters are men of the highest responsibility.

With such a proposition there is no need to beat the tom-toms. A brief official statement is sufficient. Here is the trust prospectus:

"The International Paper Company of New York was incorporated January 1, 1898. It at once took over by purchase twenty-five of the principal pulp and paper-mills of the country, which produce from 75 to 90 per cent of all the newspaper manufactured east of Chicago. The average daily output of these mills is: Ground wood pulp, 1,050 tons per day; sulfite pulp, 256 tons per day; finished paper (nearly), 1,500 tons per day. The leading manufacturers retain their interest in the industry, and many of them are giving their time and energy to the promotion of the business of the new company.

"The company has issued the following securities, the large majority of which have been used in payment for the mills, water-power, and woodlands acquired by the new corporation: First consolidated mortgage 6-per-cent gold bonds, $10,000,000; preferred stock, cumulative 6 per cent, $25,000,000; common stock, $20,000,000. The appraised value of the property securing the above-named bonds is $40,000,000. Net earnings are now more than sufficient to pay the interest on the bonds, dividends on the preferred stock, and 10 per cent on the common stock; while indications fully sustain the belief that they will

be even higher in the future. Regarding competition, it can hardly be expected to prove successful if attempted, for the valuable water-power and timber lands—400,000 acres of the latter being held—could not be easily duplicated or acquired." *

Observe the modest confidence of this statement. Competition is destroyed. A great monopoly is instituted. This monopoly is secured by the possession of water-power and timber lands. The leading manufacturers, men who have already succeeded in the paper business, bring to the company their skill and experience. Surely a company so organized has a bright future. And notice how certain are its dividends. Here is a statement made by responsible authority that the earnings, increased as they will be by the elimination of competition, will be sufficient to pay interest, preferred dividends, and 10 per cent on the common stock, " while indications fully sustain the belief that they will be even higher in the future."

Let us note a few more of these predictions of profit. The statement of the American Bridge Company was thus quoted in the Iron Age: †

" It is claimed, therefore, that if the average past earnings amount to 13 per cent on the actual issue of preferred stock, the common stock will show an actual earning from the start. It is further said that the last three years, the period covered by Mr. Little's audit, has been a period of the greatest depression that the bridge-building industry has experienced. It is felt that the audit does not fully represent the average earnings of the various companies involved in a period of normal business."

Particular emphasis was often laid on the fact that the manufacturers entered the new arrangement. Thus the official statement of the National Tube Company:

* Commercial and Financial Chronicle, vol. lxvii, p. 177.

† September 14, 1899, p. 33.

"All the stockholders of the various old companies were offered by the consolidation purchasers an opportunity to take either cash or the stock of the new company in payment. Over 90 per cent elected to take stock in payment, thus showing, after full examination, the complete faith in the enterprise of those who for years have been connected with the business and have brought it up to its present prosperity."

The official statement often descends to circumstantial details of prophecy. Witness the savings which the International Silver Company was expected to realize: *

Savings by Consolidation

	Present expenses.	Reduced to.
Salesrooms and clerk hire	$375,000	$100,000
Travelers' salaries	350,000	125,000
Travelers' expenses	400,000	75,000
Clerk hire, etc	275,000	50,000
Designers, machinists, etc	225,000	75,000
Advertising	200,000	50,000
	$1,825,000	$475,000
	475,000	
Total saving	$1,350,000	

Payments

	Present expenses.	Receipts.
6 per cent int. on $3,500,000 bonds	$210,000	$1,350,000†
7 per cent div. on $4,500,000 pref	315,000	526,000‡
10 per cent div. on $10,000,000 com	1,000,000	.....
	$1,525,000	$1,876,000#
		1,525,000
		$351,000‖

* United States Investor, May 19, 1900.
† Savings.
‡ Previous earnings before consolidation.
# Total profits.
‖ Surplus.

These examples are typical of the entire list. In the majority of official statements, it was claimed that the earnings of the constituent companies before consolidation were sufficient to pay dividends on the preferred stock, and that the common stock represented the capitalized value of the economies of combination. All the savings from management, shipping, buying and selling, and all the increased profits of monopoly were to go to the common stock, which was therefore assured of large dividends.

And yet, in spite of these detailed and apparently authoritative statements of profits, there is no real difference between the argument of the syndicate manager of the trust and that of the oil or town-site "boomer." The first is more dignified, that is all. The method of the appeal and the class to whom the appeal is made are the same in the case of either proposition. For, notice what the syndicate manager offers. These common stocks which are certain of such large dividends are freely offered at such low prices as to stamp them at the outset with the bar sinister. The average prices of various common stocks during the first month of their listing on the Exchange were as follows:

American Car and Foundry	20 5/16	Continental Tobacco	53 1/4
American Ice	39 1/4	Federal Steel	31 1/8
American Malting	27 1/8	International Paper	57 1/2
Am. Smelting and Refining	54 1/4	International Silver	33 1/8
American Steel Hoop	39 1/16	National Biscuit	33 5/16
American Steel and Wire	40 1/4	National Steel	52 3/8
American Tin Plate	40 1/16	Republic Iron and Steel	25 1/16

These prices, when measured by the yield on safe investments, represent extravagant returns. Take, for example, two of the trusts above mentioned—International Paper and International Silver—both professing ability to pay 10 per cent on their common stocks. With Inter-

national Paper, the offering price—that is to say, the price at which the stock could have been purchased during the first month of listing—represented a yield on the investment, granted that the representations of the promoters were correct, of 17.2 per cent, while the common stock of International Silver, selling around 32, represented a return of 31.2 per cent on its purchase at that price. Nearly every trust prospectus contained, however adroitly worded, an express or implied promise of dividends on the common stock, and any dividends on the common stock at the prices at which it was offered on the exchanges meant an enormous rate of return.*

With the preferred stocks, it was a little, but only a very little better. These stocks had actual earning power back of them, while the common stocks had only prospective earning power. The preferred stocks of the trust were generally offered around 76–80, which, at the usual dividend rate of 7 per cent, yielded 8.7 per cent on their purchase, a yield too large for the investor and indicating an inferior class of buyers. Even the best of the preferred stocks could not claim to rank as safe investments, although they had a certain amount of reality to sustain their value.

As for the common stock, however—what is the difference between selling a man oil stock or mining stock of 50 cents par value at 5 cents per share on the prospect that a gusher or a bonanza will be struck and the stock go to par or above, and selling him Paper, or Steel, or Tobacco at 35 or 40 or 50 for a $100 share on the prospect that all the expectations of the promoter will be realized and the stock go to par on the certainty

* It is only fair to the promoters and underwriters to state that in few cases were direct promises of dividends made. The usual form is that already given: "The earnings are sufficient for dividends." An implied promise of dividends, however, was plainly made in most cases.

of large dividends? Both are speculative propositions. Both are based on unknown conditions. Neither has any positive assurance to rest upon. In the one case, the mine "ought" to be rich, and in the other the earnings of the trust "are expected" to be large. The mine boomer points to the growing demand for copper, and the trust boomer talks about the "marvelous prosperity of the country." The mine boomer presents his mass of expert testimony, so does the trust boomer. The one has his calculations of cost and profit and his township and section maps; the other has his expert accountants' reports, his "beliefs," "expectations," and "estimates" of the savings by consolidation, and his imposing list of properties, sometimes covering the entire country. With the mining company, it is the judge, the merchant, and the mining expert who give weight to the proposition. With the trust, it is the great bankers and manufacturers who lend their influence to insure the success of the flotation. At all points, the similarity between the two propositions is complete. The trust stocks could not be sold to the investor. The speculator would buy them only on the prospect of a rate of return so large as to prove that the success of the trust was at the best problematical.

On its face, however, the proposition offered by the common stock was certainly attractive. The syndicate manager will sell a stock at 40 or 50 which *must* pay at least 6 or even 10 per cent on its par value. The common stock is the residual claimant. The preferred stockholder, it is claimed, is no better off than before; but the common stockholder is to reap the full fruition of the great step in industrial progress which the formation of the trust represents. Here is offered a double inducement: a high rate of dividend if the stock is held, or an opportunity to sell at an advance.

Moreover, the syndicate manager need not rely solely

upon published statements. Competent and authoritative opinion was not lacking to influence the wavering and uncertain speculator. The underwriting privileges had been sold, as Judge Moore expressed it, "all over the country." Financial houses and moneyed men everywhere had been let in for a share of the underwriting and had stock to sell. Besides this, there were a large number of manufacturers in all the industrial centers who wished to realize on their stock. These institutions and individuals have a large following, and their opinions upon financial matters are held to be very weighty. The promoters of American Asphalt, for example, had a long record of success in gas and electric railway enterprises behind them, and their following in Philadelphia was enormous. A proposition which had their indorsement was by most people considered worth looking into. The influence which could be exerted in this way in favor of the new securities was powerful.

There need be no direct solicitation. That would be undignified, and might make trouble between friends if anything went wrong. More than this, direct solicitation is unnecessary. As Bacon remarks in his essay on Cunning, "it workes better when anything seemeth to be gotten from you by question than if you offer it of yourself." This advice to buy stock is almost always "gotten by question" and is disinterestedly given. The news of the formation of the trusts is in everybody's mouth. Their prospectuses are in the newspapers. Imagination magnifies their really enormous extent and power and the profits which they will realize. Their stock is now offered to the public at a low price. What more natural than to consult with one's financial adviser, and what so conservative as his opinion? He advises no one to buy, or if he ventures so far, it is always with the caution that "something may go wrong," that bit of caution which

establishes him firmly as a safe adviser. He lets it be understood that he thinks well of the proposition, that he is personally interested in it, and he merely suggests that it is worth "investigating." In such matters, he who investigates is lost. The advice is often taken and the stock sold. The underwriters and owners had only to let it be known that they considered the trust stock a good thing, to gather in a large amount of money from the speculators.

There is another class to whom stock can be sold. These are the margin speculators, the people who buy stocks not to hold but to sell, whose object is not income but increased capital. By depositing a small per cent, say 5 or 8 per cent, of the market value of any security with a broker, he will borrow the remainder of the money and buy stock for them, loaning them the difference between their deposit and the value of the stock, and holding the stock in his vault. His customers pay him interest on the money borrowed to buy the stock—usually a higher interest than he himself pays to the bank—and in addition one-eighth per cent commission on the par value of the shares purchased.

The broker will buy or sell the stock as his customers may direct. By depositing $100 and paying $12.50 commission and 6 per cent interest on $900—the amount borrowed for him by the broker for the time he holds the stock—the speculator can become the owner of twenty shares of stock which is selling around 50. Suppose the stock goes up 10 points, he may sell and double his money, less the commission and interest. If the stock declines, however, the broker takes the loss out of his margin, and if the decline is excessive the trader may be called on for more margin, failing to produce which the broker sells the stock and repays the loan incurred to buy it, crediting the speculator with any of the margin which

may remain. Any dividends which may be paid on the stock during the time it is being carried are credited to the buyer. It is this fact that distinguishes gambling with chips or cards from gambling with stocks. In the first case the gambling instrument is unproductive. The "rake-off" of the house is clear loss to the players. With stocks, however, the "rake-off" is offset by the dividends. The gambling implements are themselves productive.

The speculator may also purchase an option to deliver stock in the future at the price now ruling. In this case, the broker borrows the stock or loans it out of his own office and makes the delivery within twenty-four hours for his customer. In case the stock is borrowed from another office, the borrowing broker deposits as security with the lender a sum of money equal to the market value of the stock on the day of the loan, and for this money he receives a rate of interest, called the loan rate on stocks, which offsets his customer's interest and makes short selling cheaper than buying. The broker is protected by the usual margin against an advance in the price of the stock. If the price declines from 100 to 95, the short seller of 100 shares orders his broker to buy for $9,500 the stock against which $10,000 has been deposited. The broker then delivers the stock to the one who has loaned it to him, and receives back his $10,000, placing $500 to his customer's account and returning to him, if he desires it, his original margin of $1,000, plus the net profits. If the stock advances, however, the short seller may be called on to protect his margin, for if the price has risen from 100 to 105, $10,500 will be necessary to buy the stock with which to take up the loan and receive back the $10,000 deposited as security. In this case, the customer has lost half his margin.

This form of gambling is very attractive. It is so much like "business," so much apparently depends on

the judgment of the buyer and so little on the turn of the wheel or the chance of the draw. The speculator's pulses quicken and slow with the good or bad fortune of the nation. He is interested in the crops, in the railroad earnings, in national elections, and in foreign wars. His profits depend apparently upon his own judgment. He is as confident of winning as the gambler with a "system" is confident of breaking the bank. Moreover, speculation is respectable. It is not by all persons considered reputable to play the races; but it is not often that one loses caste by playing the stock-market. Every class of the population is represented among the margin speculators. Business men and professional men are found in the better offices; clerks, teachers, ministers, and women frequent the intermediate grades and the bucket-shops.

The promoter may reckon with this class. It is to his interest to impress them with the favorable outlook for his enterprise in order to persuade them to buy for a rise. The outside buyer is almost always a bull. The margin speculator does not want the stock and is apt to sell on an advance. He puts his money into margins in the belief that the stock will rise in value. The more seductive the representations of the promoters, enforced as they are by the "tips" and the market letters of the brokers, the larger will be the buying. As the stock goes up, the profits realized are turned back into new margins and the advance gathers strength as it proceeds. Indeed, it often happens that the value of a speculative stock may be carried high above its investment value as indicated by the earnings of the company. The buyer for investment is, however, the half-seen goal of the speculator. The investment demand always looms ahead, and the speculator deposits his margins in the belief that the market value is still below the investment value.

A stock whose value is highly uncertain, fluctuating

within wide and irregular limits, affected by every breeze of rumor, such a stock as American Sugar common, for example, is also a favorite with the speculators. It is so attractively uncertain, and there is always the chance that when it falls it will rise again. The trust stocks have all been of fluctuating value and so have been popular with the margin speculators. The inducement to engage in these operations is the national desire to get something for nothing, or rather much for little. Stories of successful operation are widely heralded, and losses are generally kept secret. One incident of the 1899 boom in the stock-market was the story of a messenger boy who started in with $50 and quit with $23,000. Such stories, like the advertisements of the Louisiana Lottery, point the way to a desirable addition to a limited income. The psychology of gambling, however, is a study by itself and need no longer detain us.

In what way does this gambling furnish capital to the new enterprises? Their securities are wanted for speculative material by the brokers. They are the "chips" with which the public play the great game of speculation. The operation is something as follows: The surplus cash of the country is sent to New York city. This money can be recalled at any time, and the greater part of it is, therefore, not available for time loans. It may, however, be loaned on call. The brokers borrow this money and buy stocks for their customers. They also borrow large sums on time loans to carry their larger clients. So far as the promoter and underwriter are concerned, it is the same thing as though the broker was an investor. Their only object is to make the enterprise as attractive as possible to the public, so that the demand for speculative material may be large. The brokers, on their part, use the stocks for collateral at the banks, mixing it with other securities to support its wavering value, and make up the difference between the market price and

the value which the bank puts upon the stock as collateral —often about 20 points below the market—by their own funds and the margins which they require from their customers. Thus a large part of the surplus funds of the country is turned over to the founders of new enterprises through the channels of speculation. The money which the syndicate managers receive for their stock is borrowed money, but that makes no difference to them; they do not borrow it. The larger the demand for their stocks from margin speculators, the larger is the amount of money which is borrowed by the brokers and turned over to the syndicate.

The amount of this demand is very large. On September 7, 1899, the demand loans of the national banks of New York city amounted to $228,081,518.* Almost all of this money was loaned to speculators, and much of it on industrials. This money was turned over and over, and constantly replenished by new margins so that it might pass more than once in original exchange for stocks. The total number of shares sold on the New York Stock Exchange in 1899, the year of most active speculation in industrials, was 176,421,135, although the total number listed did not exceed 60,000,000.† On the basis of these figures, each stock was sold three times over.

But this average does not give a true picture of the situation. Many of the railway stocks are held for investment and do not come into the market. On the other hand, the industrials, owing to their wide and erratic fluctuations, have been abnormally active. The weekly sales of American Sugar have frequently exceeded the entire issue of the stock. For the week ending June 16, 1899, for example, the sales of American Sugar common

* Report of the Comptroller of the Currency, 1899, vol. i, p. 422.

† This estimate is approximately correct for the shares whose prices for 1899 are given in the Financial Review.

were 435,000 shares, although the entire issue was only 375,000. American Tobacco and Continental Tobacco, together with the steel stocks, have also been great favorites with the speculators because of their fluctuations. On the other hand, the railroad stocks have been largely neglected of late years. They are popular during an advance based on the certainty of large earnings, but their value is so well settled that, with the exception of a few street-railways like Brooklyn Rapid Transit, they offer but little inducement to margin buyers. Some few issues are still popular, but most of the railway stocks are now firmly settled upon an investment basis.

Speculation in high-priced stocks is too expensive for the average trader. A share selling for 300 would require $30 margin. Three thousand dollars are necessary to purchase 100 shares. A 10-point rise in this stock means only $1,000 profit. But for $3,000 the speculator can purchase 600 shares of an industrial selling around 50, and a 5-point rise in such a stock means $3,000 profit. The lower the price of the stock, the larger is the number of shares which $1,000 invested in margins will control, and the larger is the possible profit from fluctuations. On the other hand, with the high-priced stock, the risk of loss from fluctuations, contrary to the buyer's expectation, is as great as with low-priced stocks. It is inevitable that the general advance in railway securities should transfer the speculative interest to low-priced industrials.

The Wall Street Journal, in an editorial of March 3, 1901, expressed this conclusion as to the speculative value of industrial shares: "It is as certain as anything in the future that industrial securities will form the principal medium for speculation in this country. The field for the formation of industrial corporations is vast, and varying degrees of skill in management, coupled with the succession

of good times and bad times, will make constant changes in values which will be discounted by movements in the prices of stocks."

The syndicate manager counts upon this speculative demand. It is his principal resort during the early stages of the flotation. He advertises his stock in no way so effectively as by the record of the ticker tape. By "wash sales"—i. e., sales immediately covered by purchases between brokers acting for the same interest—he creates an excitement on the curb. The stock begins to attract attention. The newspapers take it up. This or that report is given currency: "Interests who know something about steel are buying"; "The earnings of International Paper are reported by high authority to be exceeding expectations"; "Something is likely to be doing soon in Rubber common."

More considerable articles help these stray notes. The reader of the financial column is told that "the dividends of the industrial stocks during the past six or seven years have been remarkable in amount, and the more remarkable in that these years have been those of extended commercial depression. Now if these various companies have been able to pay good dividends through times so unprosperous commercially, the prospect is that they will continue and increase them in the years before us, when the soundest financiers we have predict an era of industrial and commercial expansion such as this country has not witnessed for a generation," etc., etc. Every day the papers are full of such material.

Leading operators come out boldly and indorse the stock. It is admitted to the Exchange. Dealings rapidly increase, and a broad market is established by a steady advance. The higher the stock climbs, the more eager are the speculators to purchase. If the syndicate man-

ager catches the flood-tide of a bull market, he may dispose of his entire holdings, as the syndicate managers of the Steel Trust would probably have done had not the panic of May 9, 1901, interfered. The New York Stock Exchange is the place where large flotations can be most quickly made. It is here that the speculative interest of the country centers. The mining boomer peddles his stock about the street and advertises it in the newspapers. He is a retailer of securities. If he realizes $50,000 from the public, he may consider himself exceptionally fortunate. The syndicate manager places his interest in charge of an expert manipulator—a wholesaler—who may "clean up" several millions in a few months.

Let us now leave the financiers in process of realizing their profits in the stock-market, and turn our attention to the new corporation now formally launched as a going concern. What will it do with its profits? How will it raise new capital? and how may its capitalization be legitimated? With these questions, the remainder of our study will be concerned.

CHAPTER IX

THE ACCUMULATION OF SURPLUS OUT OF PROFITS

A CORPORATION exists and does business to produce dividends for its owners. Unless these dividends are forthcoming, the corporation fails to realize the purpose of its formation. A company which has no prospect of paying dividends should be either dissolved or reorganized down to a dividend basis.* Not only should dividends be paid, but the interest of the stockholder, of the public, and of the corporation demand that the rate of dividend should be stable and certain.

The investor desires this because the value of a stock which pays 4 per cent every year is always higher than the value of another stock whose dividends run 6, 6, 2, 2, and 4 per cent, averaging 4 per cent for the five years, but irregularly distributed. The first stock may sell for 100, and the second will not bring on the average more than 50 or 60.

* Exceptions to this rule will occur to the reader even in the class of corporations formed for commercial purposes. An example is the Philadelphia and Reading Coal and Iron Company, whose stock is owned by the Philadelphia and Reading Railway Company, and which pays no dividends. This company was organized to enable the railroad company to own and operate coal-mines, which, as a railroad company, the laws of Pennsylvania forbade it to do. Such cases, however, are only apparent exceptions to the rule that a business which is unprofitable to its owners stands in need of reorganization.

A share of stock is not only more valuable as a result of regular dividends, but it is also more stable in value. So far as they depend upon a valuation of assets, the investor can make his plans with far greater certainty if his shares are blessed with regular dividends. He can borrow on such stocks up to a large percentage of their value, when a security whose price is unstable will not be accepted by the bank.* He can usually find a market for investment securities if forced to raise funds for immediate payment, when doubtful investments could not be sold for even a considerable fraction of their real value based on their average earning power. So essential to the value of investments are these properties of stability and certainty considered, that they are generally accepted as the basis for classifying investments. The first question asked by the careful investor is not, What is this stock or bond paying now? but, What is the security for the dividend or interest? Regular dividends, therefore, are of primary importance to the investor.

The concern of the public with the stability of investments is equally great. Fluctuating values disturb business calculations. A sudden drop in the price of an important stock may cause the failure of a large bank which has accepted that stock as collateral or which was engaged in underwriting its issue, and this failure may produce a serious crisis or even a panic. The effect of the depreciation of Argentine investments upon the solvency of Baring Brothers and the crisis in the international money market which resulted, are still fresh in mind. If the value of the securities dealt in on the various stock exchanges of the world could be made as certain

* Other factors, notably the extent of distribution and the broad demand thence resulting, also influence the availability of a stock as a bank collateral; but, generally speaking, value is the determining consideration.

and permanent as the value of even the best railway investments, with the possibility of fluctuation reduced to the minimum required by conservative judgment, in such a condition of the stock-markets, the severity of a panic, or even a commercial depression, would be greatly lessened. Let the value of the world's collateral be once firmly established, and collapses of credit would be much less frequent than they are at present.

The final interest in the stability of dividends is the interest of the corporation. The corporation profits from stable dividends: first, from its higher credit with the banks. A manufacturing corporation has frequent occasion to borrow money in anticipation of income, to meet obligations which mature before that income is received. Wages must be paid, supplies purchased, interest and taxes met, often before the proceeds of sales are received, or while the goods are still in storage. These loans are usually safe and are often made by the banks with no other security than the corporation's own notes. But in order that a corporation may retain the position of a favored borrower, the value of its stock must be maintained at a good figure. A high market value for a corporation's stock is ordinarily taken by the bank as evidence of its high credit. Of course, if that value is merely a recent marking up of stock exchange quotations, it may not have much weight with a bank officer; but if it is a steadily maintained quotation and represents what investors really regard as the value of the stock, the banker considers it good evidence of the financial standing of the company applying for a loan. On the other hand, the fact that a stock sells at a low price is ordinarily a warning to the banker to discriminate against its paper unless this is well secured by indorsement or collateral.

A settled investment value for its securities also benefits the corporation by enabling it to raise money for per-

manent equipment on favorable terms. A growing company is under frequent necessity of selling its stock or bonds to obtain new capital. The price obtained for the new securities will depend to a large extent upon the price of those already outstanding. If the new issue is one of mortgage bonds, a high value for the stock indicates that the interest on these bonds will be amply secured by the surplus earnings. If, however, the stock is selling at a low figure, the investor knows that the company which proposes to increase its debt has little security to offer its creditors other than the property which the proceeds of the new bonds are to purchase. If new stock is issued, the investor will pay a higher price for it, providing that regular dividends have been paid by the company for a number of years. The investor regards its past achievements as the best assurance of its future prosperity. On the other hand, if the stock of the corporation is selling at a low value, no matter how large its net earnings may be at the time an increase of capital is attempted, the market quotation would be a notice to any one looking into its credit that there was some good reason for believing that these large earnings would not be permanent. It would be difficult to obtain a high price for the new securities under these circumstances.

So important is a regular distribution of profits by corporations considered by conservative financiers, that even when unusually large earnings enable a corporation to increase its distribution of profits, the greatest care is taken to avoid giving the impression that the increase is to be permanent until the maintenance of these larger earnings is well assured. In 1900 and 1901, for example, the Pennsylvania Railroad Company paid a 5 per cent regular dividend and a 1 per cent extra dividend. In 1902, the rate was declared to be 6 per cent. The directors were careful not to arouse false hopes in the investor's

mind, and for two years made the increase in dividend ostensibly temporary, with no formal assurance that, in their judgment, it would be permanent. In 1902, however, having satisfied themselves that 6 per cent could probably be maintained, this rate of dividend was announced. This action illustrates the general principle we have been discussing. Stable dividends and a settled value for its stocks are the objects which every well-managed corporation strives to achieve and retain. If the company has been recently founded, its directors are anxious to establish its securities in the confidence of the investor; and if the corporation has a high reputation to maintain, its officers are equally anxious not to damage that reputation by an irregular and uncertain distribution of profits.

The truth of the foregoing propositions will be admitted. An investment position is the goal of every corporation's achievement. A regular dividend is essential to that end. But we are met at once with a practical objection. It is no doubt desirable for a railroad or a manufacturing company, year in and year out, to pay 6 per cent on its stock. The earnings, however, from which these stable dividends come are by no means so regular as the dividend rate is required to be.

The earnings of a corporation are the resultant of three factors: (1) The volume of traffic or sales; (2) the rate or price at which the business is done; and (3) the cost of operation or production. A steel manufacturing company, for example, buys coke, pig iron, and limestone, converts these products into steel rails by purchasing the services of a large number of employees who operate its machinery and conduct its business, and sells the product to the railroads. The profits of the company are obtained as follows: (Receipts of sales) $-\{$(cost of materials) $+$ (wages, salaries, and general expenses) $+$

(depreciation on plant)+(interest on debt)}. A variation in any of the items of expense, unless accompanied by a corresponding variation of receipts, will result in a fluctuation of profits.

Stable profits in such an industry are obviously impossible. The price of the product varies with periodical fluctuations of demand. The growing power of organized labor makes wage cost uncertain. The allowance necessary for depreciation may be suddenly increased by a new process—for example, of making seamless steel tubes—which may throw out of use a large amount of costly machinery. Only the items of general expense and interest payment can be regarded as calculable factors. So much for the charges against the income of the corporation.

On the other hand, the amount of receipts from sales is even more uncertain. A variety of factors may operate to disturb calculations both as to price of sale and quantity to be sold. A failure of the corn crop may influence the Western railroads to postpone improving their tracks. A stringency in the money market may interfere with the sale of bonds, a part of whose proceeds was to go into the treasury of the corporation. A general decline in prices and rates may compel the railroads to insist upon a reduction of the price of rails, or an active competitor may make important concessions in order to get business.

Here are two sets of profit-variables, one disturbing calculations of expense, the other calculations of income. It is impossible that expenses should be reduced at the same time and to the same extent that receipts fall off. The result is that every manufacturing industry, and, to a less extent, because of the greater stability of its business, every railroad, is subject to extensive variation of profits. This proposition may be illustrated, however, by the fol-

lowing table, which presents the net earnings of certain industrial corporations from 1893 to 1900:

	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
American Cotton Oil ..	1.80	1.42	1.56	.88	1.54	1.55	1.88	1.73
Colorado Fuel and Iron	.96	.56	.67	.79	.82	.71	1.05	2.34
Diamond Match.....	1.35	1.37	1.45	1.22	1.27	1.15	1.51	2.01
National Lead.....	1.42	1.21	1.28	1.17	1.53	1.24	1.37	1.07
Pullman Company	6.52	5.20	4.29	4.52	4.65	5.27	5.44	6.62
Tennessee Coal, Iron & Railroad Company..	.92	.68	.56	.69	.62	.86	1.86	2.34
West. Union Telegraph	7.49	5.79	6.14	5.89	5.73	6.09	5.86	6.16
	20.46	16.23	15.95	15.16	16.16	16.87	18.97	22.27

Figures given in millions and tenths, 0.000.

The extreme fluctuations of profits, as represented by the totals of these separate statements, is 5.30 millions from 1893 to 1896, and 7.11 millions from 1896 to 1900. An extreme fluctuation in the total of 46.8 per cent is exceeded by fluctuations in the profits of individual corporations—for example, the Tennessee Coal, Iron and Railroad Company and the Colorado Fuel and Iron Co. Fluctuations in railroad earnings, while not so wide as are those in manufacturing corporations, are still extensive. It is impossible to pay out all these profits to stockholders without making dividends too irregular for the requirements of investment security. To meet these requirements, to make their dividend rate stable, the directors of a corporation must accumulate what is known in corporation finance as a surplus reserve.

The surplus reserve of a corporation is that portion of its productive assets which represents the investment of the amount reserved out of profits for the purposes of the corporation before dividends are distributed to the stockholders. The amount reserved from profits may be disposed of in three ways: (1) It may be invested in plant and equipment; (2) stocks and bonds may be purchased

for the treasury, either its own or those of other corporations; and (3) the surplus may be held in the form of cash. If the surplus earnings are spent upon a new blast-furnace or an extension of a paper-mill, the output of the corporation will eventually be increased. If the money is invested in its own securities, the amount of the annual interest claims upon the corporation's income is diminished. If securities of other corporations are purchased, this disposition of surplus profits strengthens the financial position of the company whose assets are thus increased, either by enabling it to secure material at a lower rate, or to sell its product on more favorable terms, through the interest in other companies which it secures from these investments, or by enabling it to raise money on these securities as collateral at a time when a mortgage could not safely be placed upon its plant. The same result is attained if the surplus is held in the form of cash on deposit.

The methods by which the surplus reserve is accumulated may be illustrated by the disposition of the profits of the Pennsylvania Railroad Company in 1900. The profits or "net income" of the company for the year ending December 31, 1900, was $17,277,530.71.

This money was disposed of as follows:

1. Amount applied to the purchase of the securities of the Pennsylvania Railroad and its subsidiary companies	$506,030.55
2. Amount expended in revision of grades and alignment, additional tracks, extension of piers, yards, station and other terminal facilities, improvements of bridges, abolition of grade crossings, and other improvements	6,540,785.34
3. Balance transferred to Extraordinary Expenditure Fund to complete work already authorized in revising grades and alignment and other improvements	1,449,544.07
Total capital expenditures	$8,496,359.96
4. Dividends	8,781,170.75
Total	$17,277,530.71

The large sum of $8,496,359.96, almost equaling the amount paid out to the stockholders, was reserved in order to make the dividends on the stock of the Pennsylvania more secure by increasing the margin of profits above the amount which those dividends required. Notice the three items first mentioned, in reference to this object. The purchase of securities for a sinking-fund increases the income of the road by the amount of interest or dividends on those securities. Money expended in straightening curves, replacing bridges, and reducing grades, lessens operating expenses by increasing the work which each engine can perform. Cash in bank is available for the current needs of the corporation. The joint result of these various reservations and investments is to make the plant of the Pennsylvania Railroad Company more productive, and to lessen the probability that the dividends of the company will be reduced. For many years, this policy of investing a portion of its profits in the improvement of its property and the reduction of its obligations has been pursued by the Pennsylvania. During the ten years ending 1900, the profits of this corporation amounted to $112,000,000, and of this sum only $69,000,000 was distributed in dividends. The remainder was used for the improvement of the property.

The Pennsylvania Railroad Company effects a reconciliation of the demand for a stable dividend with the fact of unstable profits, which is necessary to secure an investment position for the securities of a corporation, by lifting the minimum profits of the company above its maximum dividend requirements, and thus making sure that dividends will not be trenched upon by operating expenses and interest. By the investment of $43,000,000 of its earnings during the last ten years in improving its physical property, and by increasing its investments in stocks and bonds, the Pennsylvania is probably able to

earn a net profit of at least $12,000,000 per year. Its present rate of dividends requires only $9,000,000, and a margin of $3,000,000 of surplus earnings remains. This amount makes the dividend rate of this corporation, in the absence of contingencies which can not at present be foreseen, entirely safe.

The foregoing statement explains the nature of the service which a surplus reserve performs for the corporation which has accumulated it. A corporation, in order to maintain the value of its securities on an investment level, is obliged to pay each year a certain sum of money to its stockholders. A season of prosperity enables it to earn twice the amount necessary for the dividend. Instead of increasing the dividend rate, these surplus earnings are invested in such a way as to increase its earning power. This policy of surplus investment is continued until, no matter how severe may be the reduction of earnings from competition or reduced demand, the dividend rate and the value of the stock is secure. When that point is reached, the rate of distribution to stockholders may be increased, and the same process of surplus accumulation continued in order to guarantee the maintenance of the advance.

The surplus reserve is usually accumulated out of annual profits, and represents the capitalization of the annual surpluses. It may, however, exceed this amount, as when, for example, the growth of population increases the earnings of a railroad corporation without any increase of equipment, or when the profits of a steamship company are increased by the acquisition of distant islands. The preserving of a monopoly advantage for a long period in the face of a rapid growth of demand, as the Pennsylvania Railroad Company or the John B. Stetson Company has done, may greatly increase the surplus earning power of the company. In such an event,

a distribution of assets above an increase in the rate of dividend may be made to stockholders by a stock dividend, or by its equivalent, the issue of stock or bonds selling at a premium in the market, to stockholders at par.

Although the surplus reserve may be increased above the accumulation of annual surpluses, it is far more likely to fall below their aggregate amount. In most cases, the surplus is much less than the sum of the annual reservations from profits. The earning power of a corporation is in constant danger of being reduced by the operation of causes outside of its control, whose effects could not have been foreseen, nor charged off in the profit and loss accounts of the past. Competition, increased taxation, tariff revision, a shifting of population, may operate to lessen the demand for the product or service, or increase the expenses of operation. The additional earning power acquired by the annual reservations from profits may be no more than sufficient to maintain a safe margin above dividends. The experience of the American Sugar Refining Company, which has used the reservations from the monopoly profits of certain years to meet competition, offers an illustration of this principle.

We have finally to inquire how large a percentage of surplus reserve is demanded by considerations of investment security. In other words, how much should a corporation be able to earn above its estabished rate of dividend in order to guard against a reduction of that dividend? The percentage of surplus earning power required to give an investment standing to the stock of a corporation depends upon the stability of its profits. A general principle may be formulated as follows: The percentage of reserve of a given corporation should vary directly as the irregularity of its profits, and inversely as the stability of the demand for its product. A corporation, the difference between whose maximum and minimum profits over

a period of years is 50 per cent, should pay out only half the proportion of annual earnings which can be safely distributed by another corporation whose earnings fluctuate only 25 per cent. The fluctuation of earnings, however, varies not only between industries but within industries, and only the most general rules can be formulated.

The stability of the earnings of a corporation depends primarily upon the stability of the demand for the product or service which it supplies. In manufacturing industry, this stability of demand is greatest in those corporations which produce the necessaries of life, such as sugar, oil, and flour. It decreases as the commodity becomes less indispensable to the standard of living of the majority. In terms of the present discussion, the amount of surplus reserve required to guarantee the dividends of a sugar refining company, other conditions—e. g., conditions of competition—being the same, is less than the requirement for a lace or glove manufacturing corporation. On the basis of the breadth of the demand which their respective products supply, industries can, therefore, be arranged in a descending series—necessities, comforts, luxuries, and fads. As the intensity of the want which the goods supply decreases, the liability to reduction of demand by a general reduction in the purchasing power of the community, or a sudden shift of fashionable whim increases.

It is also to be noted that the fluctuations in the demand for all goods used in further production, including machinery and every form of materials, are apt to be quite as sudden and extensive as the irregularities in the demand for perfumery and fancy dress goods. Iron and steel products—to take the most conspicuous example of "production goods"—are purchased in order that the buyer may make a profit by using these goods in further production. Such articles as lathes, boring-mills, steel

rails, structural shapes, or even nails and wire, are not bought by the consumer, but by the producer, who expects to make a profit by their use or sale. The strength of the demand for iron and steel depends, therefore, upon the movement of profits, and the movement of profits depends primarily upon the movement of prices. When the price of wheat is rising, the demand for agricultural implements, barb-wire, and nails rises also. When the price of wheat falls, the farmer postpones these purchases to a more convenient season. Rising prices enable the railroads to increase their freight rates, and the larger profits resulting give the road more money for improvements. On the other hand, when prices are falling, the decline of gross receipts warns the engineer of maintenance of way that he must reduce his requisitions for rails and bridge material. The same influence affects the demand for the other metals, and for all such articles as coal and lumber which are purchased for profit and not for the personal consumption of the buyer. Their demand rises and falls within wide limits, as the fluctuations of prices vary the current of profits.

In order to take advantage of a stable demand, a corporation must be able to control the market, and in the possibility of this control some distinction can be made between industries. Without going into detail, it is sufficient to remark that the greater the amount of capital required to embark in a given industry, the more secure is the position of these corporations already in the field. The strength of an established railway corporation is largely due to the difficulty of duplicating its plant. On the other hand, the proprietor of a tin-plate mill is constantly exposed to the danger of competition. Stability of profits, then, is influenced by market control.

The stability of profits also depends, though to a less extent than upon the strength of the demand for the

product, upon the stability of operating cost. Cost of operation is composed of four elements: cost of materials, depreciation and replacement, labor, and general expenses, as of superintendence and advertising. The more stable these elements of cost, the more stable, other things being equal, will be the profits of the industry.

Taking up the items of operation cost in order, we find that the proportion of general expenses is relatively fixed. It ranks with rentals and interest as a fixed charge. As to wages cost, the certainty of this item depends upon the scale of wages paid. As long as the operatives earn less than the income which they believe is necessary for decent existence, they are likely to make trouble by striking. By refusing to work except at higher wages, employees may not only raise the labor cost of a concern, but may interrupt production and injure the market. In the anthracite industry, the profits of the companies are constantly endangered by the efforts of the workmen to raise their standard of living. In such a business as that of the Baldwin Locomotive Works, on the other hand, where living wages are generally paid, the factor of labor cost is in less danger of being increased by a strike. It should be observed, in passing this point, that the interests of the investor and of the intelligent labor leader are similar. Each is concerned with the general establishment of a living wage; the investor, that his dividends may not be endangered by strikes, and the labor leader, that he may secure the members of his organization in the enjoyment of a higher standard of living. There is some reason to doubt, however, whether the leaders of organized labor are as yet willing to concede the claims of the investor to be heard when demands for increased wages are made.

Industries also differ in their respective costs of depreciation and replacement. For many years the proc-

esses and machinery of the cotton and woolen industry, as compared with the iron and steel industry, have been unchanged. Only minor improvements have been made in spinning and weaving, while the processes and appliances of metallurgy have been revolutionized. At any given time, therefore, industries can be classified according to their liability to disturbance by new discoveries which will throw out of use a portion of their equipment.

The stability of materials cost depends primarily upon the ease with which the supply of materials in a given industry can be increased. It is much more difficult, for example, to construct a blast-furnace than to build a sawmill, and the price of iron is likely, for this reason, to be permanently more irregular than the price of lumber. All these factors of cost taken together, however, are of little importance when compared with the control of supply and the stability of demand. It is upon the differences between industries in these two respects that a judgment of their relative stability of profits must principally be based.

These general differences between industries, however, do no more than to furnish a starting-point for the process of determining how large should be the percentage of surplus reserve which a given corporation should carry. Within each industry, a great diversity of conditions as to the strength of demand, the cost of production, and the control over supply, is encountered. The existence of these differences of conditions makes it impossible, without reference to the circumstances of the corporation in question, to determine the proportion of reserve needed to give its securities an investment standing. One steel company may be located in Philadelphia. The demand for its product, on account of its location, will be far more stable than that of a similar company whose plant is located in Colorado. A paper company may control all

the woodland and water-power of a certain section, or it may have recently installed the latest improvements in paper-making machinery. Such a company will be able to thrive in times when its poorly equipped rivals have a struggle to make both ends meet.

Even in the industry which is most stable of all, the industry of railway transportation, wide differences in the fluctuations of earnings of individual corporations are met with. The decline in the net earnings of the Pennsylvania Railroad, from the highest prosperity of 1891 to the lowest depths of depression in 1894, was $3,138,858, or 14.9 per cent, while the net earnings of the Northern Pacific Railway Company from 1892 to 1894 decreased $5,818,844, or 58 per cent. The lines of the Pennsylvania Railroad Company traverse a densely populated section. Over a large part of the territory, the road is not pressed by competition. It enjoys a lucrative suburban and summer resort traffic, and it has always been a heavy investor in the securities of other roads. Owing to these advantages, in spite of the heavy decline in business in 1893 and 1894, the Pennsylvania Railroad Company, by its reduction in expenses, and because of the stability of its traffic, was able to maintain its rate of profits but slightly diminished, and to pay the usual 5-per-cent dividend to its stockholders.

The Northern Pacific Railway Company, on the other hand, during the same period, was forced into bankruptcy by its inability to pay its fixed charges. This road traverses a section which was at that time sparsely settled, and largely dependent on the continued investment of outside capital for its solvency. Agriculture was the main business of the territory which it served, and agriculture was well-nigh confined to a single crop. The prosperity of the region depended on the size of the harvest and the price of wheat. The fortunes of the rail-

road were bound up with the demand for a single commodity. The outcome of this situation showed that a transportation business mainly dependent upon a few items of freight traffic is equally unstable with manufacturing industry. The withdrawal of outside financial support in 1893, and the fall in the price of wheat, largely contributed to force the Northern Pacific into bankruptcy and reorganization; while certain other railroads in more favorably situated portions of the United States, experienced only temporary inconvenience, and were not even compelled to reduce their dividends. Given similar environments, however, and the irregularity of corporation earnings will vary with the constancy of demand, the control of supply, and the stability of the conditions of production. Such an equivalence of environment, however, even in comparing two corporations within the same industry, is not often met with.

We may, however, answer the question as to the proper amount of surplus earning power which a corporation should maintain by reference to the practise of conservative railway and industrial companies. The Pennsylvania Railroad Company has for some time made it a rule that for every dollar paid out in dividend another dollar should be invested in the road.* Its surplus is probably not less than 50 per cent. The Chicago and Northwestern Railroad Company has reserved on a ten-year average, 26 per cent of its profits; the Milwaukee and St. Paul, 27 per cent; and the Great Northern, 36 per cent.

In fixing upon the percentage of reserve required for a manufacturing corporation, it is safest to require as large a proportion as that accumulated by the strongest

* This statement rests not upon any special information as to the unwritten laws of this corporation, but upon the known facts of its receipts and disbursements.

railway corporations, since the nature of the railway business renders the earnings of long-established companies far more stable than the profits of even those manufacturing companies which are most firmly entrenched in a strong position of monopoly advantage and stable demand. Accepting this basis of judgment, we may lay it down as a basic principle in corporation finance, that a manufacturing corporation should not pay to its stockholders, on an average of good years and bad, more than 50 per cent of its profits. The remainder should be invested either in improving the equipment of the company, or in securing advantageous connections by investment in other companies, and particularly by investment in high-grade bonds on which cash can be raised in a tight money market; in short, in increasing the earning capacity of the company to a point where it can always earn double the amount of its dividend requirements. As the dividends increase, the surplus must also increase, both dividends and surplus, with ordinary prudence and good fortune, moving up together, the stockholders profiting in this way, not merely from an increasing return, but from complete security in any rate of dividend once attained. An implication of the above is, that in prosperous times a much larger percentage of earnings than 50 per cent should be reserved to compensate for the small reserves of bad years.

CHAPTER X

THE RESERVE POLICY OF THE INDUSTRIAL TRUSTS

The accumulation of a large surplus reserve is peculiarly important for a corporation when it has undertaken a new form of industry or has been organized on a new model. A new enterprise of this character has its reputation to establish with the investor. A certain amount of speculative promotion has usually attended its foundation, and its shares have been sold to speculators at low prices. Conservative investors hold aloof from purchasing, and await the development of its policy. They desire to see how the predictions of the promoter will be borne out by the result. They also scrutinize the management of the company, and inquire whether the business is to be managed for the stockholders or for the stock-market, and if the controlling interest proposes to stand by the corporation, or to sell out to the public at the first opportunity.

The investor is particularly solicitous concerning the disposition of profits. He demands, as a condition precedent to his taking an interest in the new company, that it should demonstrate not merely its ability to make large profits during the prosperous times in which speculative enterprises are usually started, and when any manufacturing consolidation, even if recklessly managed, is likely to make some money, but he requires also that the large profits of this initial prosperity should be invested in the

business, and thus be used to build up a surplus reserve which shall make his future dividends safe.

To the early payment of dividends by new corporations, especially where these companies are conducting industrial experiments, the investor is opposed. He desires that a corporation should first of all make its financial position secure before taking up the question of distributing profits to stockholders. He regards it, in the long run, far better to establish a 2-per-cent dividend rate than to pay 6 per cent for three years, and then to pass the dividend for three years more. In other words, 12 per cent of dividends paid in six years at the rate of 2 per cent per year, is, from the investor's standpoint, better than 18 per cent paid in three years with a no-dividend period of equal duration. If these requirements are complied with, and providing the new company is successful, the investor will gradually buy its securities whose original holders will profit by the increase in the value of their property which will result. That is to say, if the company is conservatively managed, stock which was bought for 35 or 40 may be gradually advanced to 100.

In no other way can a corporation, the permanence of whose earning power is in any way doubtful, so certainly reach an investment position as by a resolute adherence to the policy of reserve accumulation, and a refusal to pay dividends until its ability to continue paying dividends is unquestioned. This process of salvation may be tedious, but it is certain. No matter how inflated the capitalization of a new company, no matter how threatening the danger of competition, no matter how irregular the demand for the product, the steady investment of profits in surplus earning power will in time build a solid foundation of productive assets, upon which, slowly though it may be, conservative management will rear a structure of investment value.

The regeneration of the Midvale Steel Company illustrates the importance to a weak corporation of accumulating a large reserve out of earnings. This company manufactures steel tires, projectiles, guns, and steel forgings at Nicetown, Pa. In 1887, its affairs had become involved and its earning power was much reduced. This situation was in part due to mismanagement of the plant, and in part also to a policy of excessive dividends without regard to the accumulation of surplus. In 1887, interests represented by Mr. Charles Harrah purchased a majority of the stock, and he was placed in charge of the business. Under the new management, in spite of severe pressure from the minority interest formerly in control, no dividends were paid for ten years, the entire earnings being invested in the improvement and enlargement of the equipment. In a single year, so it is reported, although the capital stock is only $750,000, more than $1,000,000 of profits were put into improvements. The real value of the equipment of the Midvale Steel Company, on the basis of its earning power, is, at the present time, probably five times the amount of its stock. This enormous surplus has been accumulated out of earnings.

Beginning with 1897, as a result of this policy of surplus accumulation, while the company has continued to make liberal appropriations for improvements out of the profits of each year, a very large per cent dividend has been declared. At the present time, the financial standing of the Midvale Steel Company is of the best; and if its shares were to be offered at public sale, they would command investment prices. The reserve of surplus earning power is now so large that, although the profits of the company may rise and fall with the tides of demand, its dividend rate is in little danger of reduction.

The position of the industrial trusts during the past

three years was essentially speculative. Large promises and glowing predictions had been made by their promoters, which time was necessary to verify. It is true that in most cases, these optimistic expressions rested upon a base of strong probability. The trusts had secured a large measure of control over their respective markets. The individual manufacturers retained a substantial interest in the new companies, and this fact, apparently, guaranteed a continuance of economical administration. The prosperity of the country was unparalleled. The demand for every kind of manufactured product and material from 1898 to 1902, with infrequent interruptions and few exceptions, was strong and constant. A steady advance in the prices of the products without corresponding increases in wages cost, and in many cases, because of the control which the new consolidations possessed over the sources of their supplies of materials, without corresponding increases in the cost of materials, has proved enormously profitable to the trusts. Under these favorable conditions, the profits of the trusts—although, for reasons which will be presented hereafter, they did not, with a few conspicuous exceptions, of which the United States Steel Corporation is the most prominent, equal the predictions of their promoters—have, notwithstanding, been large. They have generally exceeded the amount necessary to pay dividends on the preferred stocks, and in some instances, particularly in the iron and steel industry, earnings have left a substantial margin above the preferred stock requirements.

Here was presented a fortunate opportunity for the trusts to secure for their stocks an investment position. Let them take these large profits and invest them in strengthening their earning power; let them install new machinery in the antiquated plants which they had been compelled, by the necessity of obtaining control of their

respective markets, to take over; let them secure themselves in their own supplies of material; let them invest largely in high-grade securities and also accumulate a large cash capital; in short, let them use the windfall of profits, which a fortunate conjunction of circumstances had brought them, to so strengthen their industrial and financial position that their ability to pay a moderate dividend on their stocks would never be questioned. By adopting such a policy, the trusts could have established themselves in the confidence of the investor, and could have eventually produced for their shareholders, by the advance in the stocks, a very large margin of profit over the prices at which those stocks had been purchased.

On the other hand, it would seem that the trusts had every reason to avoid a policy of distributing their profits to stockholders. The sun of prosperity would not shine forever. Sound judgment warned them that the wave of demand would sooner or later recede, unless the experience of a hundred years was worthless as an indication of the future. A fall of prices would eventually depress their profits. A considerable decline of profits, moreover, would be dangerous to corporations weak in surplus reserve. Financial stringency, in the absence of collateral investments, might prevent them from raising the funds needed to preserve them from bankruptcy. A dull security market might compel them to incur large floating debts for working capital or necessary repairs, and a large floating debt is admitted to be one of the most serious of dangers to a corporation. Inferior equipment might place them at the mercy of competitors whose opposition they would have no power to resist and no money to purchase. In short, the accumulation of a large surplus reserve by the trusts was not merely necessary to raise their stocks to an investment level, but was imperatively demanded by considerations of future solvency. A manufacturing cor-

poration without a large reserve is a prospective bankrupt. It will probably founder in the storm of a financial panic.

In view of these visible considerations of advantage to be gained and of danger to be avoided by the reservation of profits for investment in earning power, it would seem certain that a conservative policy would be adopted by the directors of the trusts. It was, apparently, not to be expected that intelligent men would embark upon a course of paying out profits to owners, which would condemn the stocks of the corporations whose reputations were entrusted to their care, to the precarious position of speculative securities, and which would so weaken these companies, that a recurrence of such a period of depression as that from which the country had just emerged, would plunge many of them into bankruptcy. The adoption of a policy of paying out profits before the new companies had thoroughly established themselves, was so foolishly dangerous, that it is impossible to believe that experienced business men would, of their own accord, and in the absence of circumstances and conditions compelling them to act against their better judgment, sin away their day of grace, cast aside the means of financial salvation which good fortune had placed in their hands, and plunge recklessly into a course of dividend payment which was certain, on the basis of past experience, to land many of the new companies upon the rocks. And yet this is precisely the course which the directors of the trusts, with hardly an exception, adopted. The industrial combinations paid out their large profits to their stockholders almost from the beginning of their existence. The first thing in order after the organization of the companies was the payment of dividends. The following table shows the amount of dividends paid in the four years, 1898 to 1901, by the principal trusts organized during that period:

Name of Company.	Date of organization.	Issued capital stock.[1]	Dividends.	Surplus.	Per cent surplus of capital.	Per cent surplus of profit.
American Agricultural Chemical	1899	$33,702,200	$3,058,334	$1,029,042[4]	3.0	25.2
American Beet-Sugar	1899	19,000,000	480,000	81,943[5]	.4	14.4
American Bicycle	1899	26,996,400	.....	956,262[5]	3.5	....
American Car and Foundry	1899	60,000,000	7,415,875	6,670,551[5]	11.1	47.4
American Ice	1899	36,249,100	3,939,779[2]	1,624,765[5]	4.4	....
American Linseed Oil	1898	33,500,000	1,700,562	—2,054,659[6]	Deficit.	....
American Locomotive	1901	49,100,000	1,750,000	224,235[4]	.4	11.3
American Smelting and Refining	1899	100,000,000	6,963,053	2,951,968[4]	2.9	29.7
American Steel and Wire	1899	90,000,000	9,100,000	11,639,659[7]	12.9	56.1
American Steel Hoop	1899	33,000,000	1,715,000	3,046,896[7]	9.2	63.9
American Tin Plate	1898	46,325,000	4,805,500[2 3]	4,654,832[7]	10.0	49.2
American Woolen Co	1899	49,501,000	2,800,000	2,783,409[5]	5.5	49.8
Continental Tobacco	1898	97,690,700	9,524,727	4,589,627[5]	4.6	32.7
Crucible Steel Company of America	1900	50,000,000	3,557,031	2,199,452[4]	4.3	38.2
Federal Steel	1898	99,745,200	4,938,703	4,579,642[8]	4.5	48.1
International Paper	1898	39,849,500	5,819,412	4,073,041[4]	10.0	41.1
International Steam Pump	1899	23,199,700	2,223,684	2,227,905[4]	9.5	50.0
National Salt	1899	12,000,000	1,238,153	29,888[9 5]	.2	22.8
National Steel	1899	59,000,000	3,007,500[2]	3,706,391[7 10]	6.2	55.2
National Tube	1899	80,000,000	8,400,000[2]	8,678,365[7 11]	10.8	50.8
Pressed Steel Car Company	1899	25,000,000	2,750,000	1,700,171[5]	6.8	38.2
Republic Iron and Steel	1899	47,497,900	3,554,679	1,331,173[5]	2.8	27.2
Rubber Goods Manufacturing Co	1899	24,993,100	2,256,615	204,041[5]	.8	.8
Union Bag and Paper	1899	27,000,000	2,310,000	846,980[4]	3.1	26.8
U. S. Cast Iron Pipe and Foundry	1899	25,000,000	875,000	457,742[4]	1.8	34.3
United States Steel	1901	1,018,560,020	56,017,783	24,449,717	.4	30.3
		$2,208,669,820	$150,201,390	$70,682,038	3.2	31.9

[1] Figures are taken from the Financial Review of 1902.

[2] Estimated.

[3] Includes 8 per cent on common stock declared January, 1901, deducted from surplus. These surplus reserves have been taken wherever possible from the profit-and-loss accounts of the companies. Unless these corresponded with the profit-and-loss account, the surplus items of the balance-sheets have been disregarded. The lack of uniformity in reports makes it necessary, in some cases, to employ the method of estimate.

[4] Report for 1901-'02.

[5] Report for 1900-'01.

[6] Deficit.

[7] The constituent companies of the United States Steel Corporation are computed to January, 1901.

[8] The dividends paid to March 20, 1900; surplus of December 31, 1899.

[9] Now in the hands of a receiver.

[10] Surplus March 20, 1900.

[11] Surplus June 30, 1900.

The twenty-six consolidations, whose profits and surplus are given in the above, earned, from the dates of their organization to the dates of their last annual reports, $150,201,390. This amount, although large in the aggregate, represents but little more than 3 per cent per annum. So enormous had been the capitalizations of these companies that even the large profits of 1899–1901 constituted a very moderate percentage of return on their stock. It would appear, as already stated, that every consideration of prudence would incline the directors of these companies to reserve practically all their profits in order to strengthen the financial position of their companies. So far from following the path of prudence, however, 67.9 per cent—two-thirds of these profits—were paid out in dividends, leaving 32.1 per cent for the surplus reserve. The inadequacy of this reserve may be better understood when it is compared with the outstanding capital whose permanent value it was intended to secure. A reserve of only 3.2 per cent as the net result of the operations of three years.

It is true that with many companies this percentage of reserve is much larger than the average. The constituent companies of the United States Steel Corporation, for example, the American Car and Foundry Company, and the International Paper Company, as may be seen from the percentage columns on the table, were much larger than the average, although the good record of the former has been spoiled by the expansion of capital and the increased disbursements of the United States Steel Corporation. It should be remembered, however, that the estimates of surplus are taken directly from the reports of the companies, and that these reports do not show in satisfactory detail the amounts reserved for depreciation and repairs. A more searching analysis of their financial condition than can be made from their meager reports would

probably reveal a certain laxity in this regard on the part, at least, of some of them. As it is, however, putting the best face on the matter, and refusing to go back of the returns, the conclusions of this table are in the highest degree unfavorable. These surplus reserves are inadequate.

It is not surprising, in view of these diminutive reserves, to find that the stocks of each one of these companies remained on a speculative level. The investor was plainly unwilling to put his money into industrials. On every hand were heard warnings that the present prosperity was exceptional and temporary; that the profits of 1899–1902 could not be permanent. And yet, in the face of this situation, with the obligation to conserve the interests of these companies resting upon them, and with the opportunity to discharge that trust by investing their large profits in surplus earning power placed within their grasp, the directors of the trusts, almost without exception, cast prudence to the winds, and entered upon a financial debauch of dividend payment. The explanation for this manifest incongruity we have now to discover.

In his History of the Slave Power in America, published in 1863, Professor Cairnes explained the conflict between North and South by reference to certain permanent and fundamental characteristics of the institution of slavery: the one-crop system, with its exhaustion of the land and resulting necessity for the extension of slave territory; the impossibility of manufacturing enterprise with slave labor; and the instinct and habit of arbitrary power which their position of dominance had built up in the minds of the slave owners. Given these characteristics of slavery, and Professor Cairnes showed that its development along historical lines was inevitable, and that this development led certainly and directly to an

armed conflict with the North, the result of which the system of slave industry had also foreordained. We may, in the present discussion, employ with advantage a similar method, and explain the financial history of the trust movement by reference to the circumstances of its promotion and financiering.

In a former chapter it was shown that the trusts could not have been organized without the provision of large amounts of cash to purchase certain plants whose owners were unwilling to receive stock in payment, and also to replace the cash capital which was generally reserved by the original owners in their contracts of transfer. This cash must be furnished by underwriters who act as middlemen to buy a portion of its stock from the trust, and presently sell this to the public. It appeared also that promoters, and eventually certain owners, had large amounts of stock to dispose of. This stock could not be sold to the investor until an experience of several years had demonstrated its value. The original owners of the stock, however, would not wait for the slow maturity of investment judgment. They had not taken the trust stocks to hold, but to sell. The same prudence which warned the investor not to buy these securities, cautioned the underwriter not to hold them for investment profits. The motto of the underwriter is the largest profits consistent with quick returns.

It is true that the financiers of a new corporation, if they deal honestly with the public, will continue for some time to be active in the management of a company for which, in a sense, they stand sponsor. They will be especially forward in supporting the price of the new stocks in order to sustain the credit of the company whenever the market is unfavorable. In the pursuit of this policy of temporary control, syndicate managers will often accumulate a large amount of the company's stock, either

to decide an election or to sustain the market. The support given to the stock of the United States Steel Corporation during the strike of its employees in the summer of 1901, offers an illustration of such buying. It is no part of the underwriters' intention, however, to make these holdings permanent, and thus to identify themselves with every corporation with which they may be temporarily associated. The profits of underwriters and promoters come from the sale of securities, not from dividends and interest. Their resources are, so far as possible, held in such form as to be instantly available. To this end, they must sell the securities which they have underwritten at the earliest possible moment.

The sale of trust stocks, as already explained, in view of the unwillingness of the investor to buy them, must be made to the speculator. In order to persuade the speculator to buy, however, he must be given the assurance of large and immediate returns on his purchase. If he buys stock to hold, he usually looks for not less than 10 per cent on the purchase; and if he buys on a margin to profit by an advance, he expects an advance in price which can be brought about only by large and sustained dividends. It will not satisfy a speculative buyer to tell him that the profits of the new company will be invested in betterments which will, at some remote period, inure to his advantage. Such an announcement would probably frighten him away from the stock of the company which made it, and with good reason, for the prospectus has set forth that the earning power of the new company is sufficient to pay large dividends on both classes of stock, not five years hence, but immediately. Without these sanguine representations, the interest of the speculator could not be aroused. He thinks in terms of the present; what will happen five years hence does not concern him. An individual who looks ahead is

an investor, not a speculator; and we have already shown that as an investment proposition the trust, in the form in which it was organized, was impossible. It follows, therefore, that the trust stocks could not have been sold to the speculator without the promise of immediate dividends, and since a quick sale must be made, these dividends must be paid.

Moreover, dividend payments once begun must be continued. Nothing is more damaging to the reputation of a new company than a reduction or passing of its dividends. The value of a speculative stock is based on its present yield. No matter what the purpose of passing the dividend may be, the fact of its interruption alarms the speculator, and immediately depresses the stock whose stream of income has been dried up. Recent illustrations of this principle of speculative value are afforded by the decline in common stock of American Ice from 31⅞ to 9½, of United States Rubber from 34 to 12½, of Colorado Fuel and Iron from 110½ to 73¾, and of Consolidated Lake Superior preferred from 70 to 32, the depression in each case being due to the reduction or passing of a dividend.

It may be urged that once the stock is disposed of, the directors can suspend dividends for the sake of surplus reserve. The stockholders will get the money some time. What does it matter, in the words of the late Collis P. Huntington on the subject of a suspension of dividends on Pacific Mail stock, "whether they get their dividends in money or in ships"? But to this policy, aside from the shock to the reputation of a new company which always attends the abandonment of a dividend position which has once been assumed, and which is reflected in its credit standing, there is the further objection that the profits of the underwriter, and of all others connected with the trust who have stock to sell, can not be realized in a hurry. A considerable period is often required to work off their

holdings on the public. Any attempt to dispose of a large amount of stock without reference to the absorbing quality of the market would break the price beyond the possibility of quick recovery.

It was for this reason that the owners of the constituent companies were generally required either to hold their stock off the market until the underwriters had disposed of their holdings, or, in case this requirement was not made, the owners were required to place their stock in the hands of the syndicate brokers in order that the amount and manner of sale might be controlled by a central authority. The market for the stock must first be "made" by the methods previously described, and then it must be kept "made," by the most careful manipulation. Damaging facts must be suppressed. Reports must be prepared to emphasize the strong points of the company's position. A general air of opulence and success must pervade the company in order to sustain the interest of the public in its shares.

The realization of underwriters' profits even on high-grade bonds is a delicate operation which must often be long continued. Take the case of the Burlington Joint fours, the bonds which were first issued in April, 1901, in exchange for the stock of the Chicago, Burlington and Quincy Railroad Company, under the joint guarantee of the Great Northern and the Northern Pacific. These bonds are well secured by the net earnings of the three roads concerned, and they were offered around 96; but in spite of their investment character, it is understood that the sale of the underwriting holdings was not concluded until some fifteen months after it was begun. First the panic of May 9th, then the failure of the corn crop, the death of the President, and, finally, the suit against the Northern Securities Company, which investors erroneously believed affected the position of these bonds,

interfered with their speedy sale. If so great difficulty is encountered by underwriters in selling investment bonds for which an inexhaustible demand is supposed to be always waiting, how much more difficult and uncertain must be the sale of new-fledged industrials, to a class of buyers whose demand is at best highly uncertain?

All this time, therefore, while the sale of stock is proceeding, a show of dividend payment must, if possible, be made. The speculative value of the stocks depends on their dividends. That value must be sustained until the underwriters' stocks have been sold. To this end, the payment of large dividends is essential. The underwriters of the trusts have been extremely fortunate in that the unexpectedly large earnings of these companies enabled them to make such a brilliant dividend showing.

Dividends are required by the underwriting interests for still another purpose. In the discussion of underwriting, it was shown that, in order to furnish to the promoter the cash which was necessary for his flotation, large loans had to be made by the syndicate manager and the underwriters. These loans had to be carried until redeemed by the proceeds of the sale of the stocks purchased by the underwriter, or until taken up from other resources. The interest on these loans was no small sum. The usual rate of interest in such transactions would be around 4 per cent, and this on $15,000,000 of cash, an amount which was sometimes provided, would be $600,000 per year, which the underwriters must pay while waiting for their profits. In exchange for this amount of cash, they probably received $30,000,000 of stock, half preferred and half common. The dividends on the preferred alone would pay their interest and leave them $450,000 annual profit during the period that they were carrying the stock. If something remained on the common, that might also be paid out to the underwriters, who would

usually hold a quantity of the junior securities. The payment of dividends on stocks held by underwriters is entirely proper, from their point of view; not merely in order to make a market for their stocks—and, as just shown, without such dividends a market could not be built up and maintained—but also in order to offset the interest on the money they had borrowed and handed over to the promoter, and to give them, while waiting for the sale of their holdings, some current profit on their investment—a favorable consummation not in all cases to be realized.

One final reason remains to explain the payment of large dividends by the trusts at the expense of their surplus reserves. This is found in the nature of their securities. We have already seen that the stock capital of the trusts was divided into preferred and common stock, and that the preferred stocks included the cumulative provision, which guaranteed to the holder that all unpaid dividends would be made good before anything was paid on the common. This cumulative provision, it was shown, had been inserted in the contract with the preferred stockholder because of the greater security which it carried. Preferred stock, which is cumulative as to dividends, and which, in case the corporation is dissolved, constitutes a preferred claim on assets, is hardly inferior in security to mortgage bonds. The owners of plants were more willing to receive such securities in exchange for their property than if the promoter had issued only one kind of stock to represent both value in existence and value in prospect. In order to secure the general acceptance of stock for plants, which was necessary to the success of this flotation, the promoter had provided for cumulative preferred stocks. This cumulative feature, however, although a valuable aid to the promoter, offered a serious obstacle to the accumulation of surplus reserve. It was difficult for the

directors of the trusts to pass preferred dividends and invest the money in increasing the earning power of their corporations, because the passed dividends remained alive as deferred claims to future profits. During its recent expansion of earnings, the Colorado Fuel and Iron Company paid off $640,000 of back dividends on its preferred stocks, and the General Electric Company devoted $1,527,654 to the same purpose.

It is true that the directors might, with safety to the corporations, have allowed these preferred claims to accumulate to any extent for the benefit of their surplus reserves. In this way, adequate reserves could have been accumulated, which, in turn, would have guaranteed the resumption of regular dividends upon the preferred stocks. The payment of common stock dividends, however, under such a condition of affairs, would of course, for some years, be out of the question. In five years, a period none too long for accumulating enough surplus earning power to insure the payment of dividends on both classes of stock, the common stock would have been buried under 35 per cent of unpaid dividends on the preferred. These back dividends, even under the most favorable conditions, could not be paid off, while at the same time the annual dividends on the preferred are being maintained, in less than five years more. In short, if an adequate surplus reserve is to be collected out of the profits to which the preferred stockholder has been given a cumulative claim, the common stockholder must stand out of his dividends for perhaps ten years. It would be difficult to sell stock under these circumstances.

After the common stock had once been purchased in good faith by large numbers of people on the promise of immediate return, the directors could not in fairness extinguish its value by accumulating back dividends on the preferred, no matter how imperatively this course

might be demanded by considerations of security and stability. If such a catastrophe to the common stock resulted from causes outside of their control, the directors could not be blamed; but the deliberate adoption of a policy of reserving profits for the benefit of the corporations, however justified when only one kind of stock has been issued, the certain outcome of which would be to make the payment of dividends on 50 per cent of the stock only a remote probability, would have rendered the directors morally, if not legally, liable to the charge of conspiracy to defraud the common stockholders. No matter how necessary the passing of their dividends and the accumulation of large reserves might be when judged by the standard of investment requirements, so far as concerned the dividends on the preferred stock, in view of the cumulative provisions contained in the contract which the corporation had made with the preferred stockholders, this course was practically impossible. Dividends on the preferred stock, if earned, must be paid. We see, therefore, that, even had they desired to improve the position of the trust stocks by investing profits in betterments, the directors could only have taken the profits available for common stock dividends for this purpose.*

The payment of dividends on the common stock was not so imperative. This was the junior security. No inferior issue would suffer if its income were sequestered for the use of the company. The payment of common stock dividends lay wholly within the discretion of the directors. But the injury to the common stockholder by the withholding of dividends would have been equally great, as in

* It is to be noted that the United States Cast Iron Pipe and Foundry Company, which has during the past year materially improved its position by suspending all dividends, was enabled to do this without injury to the common stockholders because its preferred stock was non-cumulative, a feature unusual among trust stocks.

the former instance. If preferred stock dividends were to be paid, and that, too, at the high rate of 7 per cent, there would probably be at best only an equal amount remaining for the common stock. If this were to be sequestered by the directors for the reserve, while half the profits were paid to the preferred stockholders, a much longer period would be necessary to make the securities safe by doubling the amount of productive assets necessary to pay them. In such an event, the value of the common stock would have been depressed quite as much as if no dividends at all had been paid for five years, and surplus earnings devoted to paying back dividends on the preferred for five years more.

The results of a conservative dividend policy upon the value of common stock is illustrated by the experience of the International Paper Company. This company was organized with $25,000,000 of preferred stock and $20,000,000 of common. It originally included seventeen plants, which manufactured, according to its own statement, practically all the newspaper consumed east of Chicago. A dividend of one per cent on the common stock was declared in December, 1898, and all went well with the company until February 4, 1899, when the announcement was made that there had been acquired fourteen additional pulp and paper manufacturing concerns which had been competing with it. To acquire these concerns, some cash had to be expended and additional securities were issued. Some $160,000, or 0.8 of 1 per cent, was paid on the common stock, which immediately fell from 65 in January to 35 in May.

On August 5th, President Chisholm, in response to an inquiry of an anxious holder of common stock as to the prospect of his ever getting anything from his investment, stated publicly that "the condition of the company is extremely satisfactory. Its profits are large and

its future assured." The hopes of the common stockholders, however, were disappointed. At the annual meeting on September 2, 1899, it was announced that the company had made a large expenditure for improvements on new mills, etc., and was now engaged in building a factory with an output of 10,000,000 paper bags. The dividends amounted to $1,786,206, the regular 6-per-cent dividend on the preferred stock, and 3-per-cent on the common stock. The statement was not satisfactory to the common stockholder. International Paper common immediately fell to 31, and by November, 1899, it was down to 25, and now stands at 18, no dividends having been paid in 1900 or 1901.

The result of the policy of reserving profits from the common stock in this instance shows the disfavor with which it is regarded by the speculator. Even though the money is invested in betterments, the common stockholder is not satisfied that he will ever get anything from the new income, and the stock sinks to a low speculative level. The same condition prevails in a number of other issues of common stock. The American Car and Foundry Company, in particular, has succeeded in building up a large surplus out of profits; and yet its common stock, on December 6, 1902, sold at 34⅜.* On the other hand, when dividends have been paid on the common, a better value results. The common stockholder prefers to take his dividends in money rather than betterments.

The payment of common stock dividends by the trusts, whenever earnings allowed this, was, furthermore, necessary to sustain the credit of the promoters and syndicate managers, and also the credit of the corporation. The reputation of many industrials has been seriously injured by the failure of their directors to redeem

* It is worthy of notice that the preferred stock of this company is also non-cumulative.

the pledges made to the common stockholder, by passing common stock dividends, even though the funds thus reserved are invested in the plant. It has been charged that the interests in control of the trusts have generally disposed of their common stock holdings, and set to work to strengthen the position of the preferred stock which they retain, at the expense of the common stock which they have sold.

If the preferred stockholders were certain that their dividends would always be earned, and that something would remain for the common stock, they would not hesitate to pay out their profits to the junior security. But there is no such assurance. The day of adversity threatens when competition must be met and low prices endured. It has been claimed, indeed, that insiders, after they have once unloaded their common stock on the public, strengthen their preferred holdings by diverting to their own use the surplus earnings. Money which they invest in permanent improvements, new machinery, stores of raw material, or the purchase of competing plants, is so much gained for the preferred stock. It adds greater strength to the company, and insures a higher average of earnings, but these investments give no assurance that the common stockholder will ever receive a dividend.

These charges are not substantiated by other than inferential evidence; but the fact that inside interests are known to hold a smaller amount of common than of preferred, and the wide margin which exists between the value of the preferred and common even where a good margin over preferred dividends is being earned, should warn the directors of corporations which are postponing common stock dividends that their motives are liable to misconstruction.*

* United States Investor, vol. x, pp. 857, 1650.

We see, therefore, at the end of this discussion of financial necessity, why it was that the directors of the trusts have so recklessly distributed their profits. The trusts could not have been floated as they were floated, *en masse*, without the provision of a large amount of underwriting, and without the issue of cumulative preferred stocks to induce the exchange of plants for stocks—an exchange which was necessary to reduce the amount of underwriting to a practicable figure. The underwriter must sell his stock within a short time in order to receive back, with a profit, the cash which he has advanced to the promoter. The underwriter can not wait for the development of an investment demand for his stock, of whose ultimate value there is grave question. He must, therefore, sell to the speculator. In order to awaken and maintain a speculative demand, large dividends must be promised and paid. While the stocks are being sold, their dividends are needed to pay interest on underwriting loans and to yield a current profit. Furthermore, the passing of dividends on cumulative preferred stock is fatal to the value of the common stock. The passing of common stock dividends, moreover, in addition to the objection that a long period is required to produce a revenue for the common stock by this method, lays the insiders open to the charge of unfair discrimination against the common stockholder. The distribution of profits, whenever earned, was therefore in most instances demonstrably certain. There was nothing else to do. The failure to build up large surplus reserves by the trusts follows inevitably from the methods necessary to their promotion. Given an organization of this character, and an extravagant financial policy can usually be foreseen.

The result of paying out profits at the expense of surplus reserve has been already shown to be the weak-

ening of a manufacturing corporation. If competition arises, it is helpless to resist and tends inevitably toward disaster. An interesting illustration of this proposition is furnished by the formation of the United States Steel Corporation. The history of its organization will be the subject of the next chapter.

CHAPTER XI

THE GENESIS OF THE UNITED STATES STEEL CORPORATION

The consolidations in the steel industry of the Middle West, which were organized from 1898 to 1900, were generally regarded as industrial experiments. Their capitalization was based upon the predictions of their promoters that the experiments would be successful. These predictions much time was needed to justify. Meanwhile, the steel trusts were exposed to great and evident dangers. Competition from new enterprises was everywhere threatened. The future relations between the trusts themselves were by no means certain to be harmonious. The profits of the promoters and underwriters were known to be large. In short, the position of the steel trusts was essentially speculative—a fact proved by the sale of their stocks at low values. If the values of these securities were to be raised to an investment level, and kept at that height, these doubts and apprehensions must be removed from the mind of the investor. This could be done in no other way than by the passing of dividends and the building up of large reserves.

Iron and steel, although staple commodities, nevertheless, from the standpoint of the surplus reserve which is necessary to sustain the dividend rate of corporations engaged in their production, belong to the class of commodities whose demand is fitful and uncertain, and whose

methods of production are constantly being revolutionized. The surplus reserve of a steel company, if its securities are to sell at investment prices, should therefore be larger in proportion to its average earning power than the reserve of a railway corporation. Only by the accumulation of a large proportion of surplus earnings, can a corporation engaged in the manufacture of steel, guarantee to the investor that if he buys its securities, his sleep shall be sweet. European manufacturers recognize this necessity. They are extremely cautious in the payment of dividends, and their depreciation accounts are generally large.* The conservatism of this policy is the more striking in its contrast with European railroad practise which sanctions the free disbursement of profits without large provisions for betterments out of earnings.

It would seem to have been the plain duty of the management of the steel trusts to pass dividends and squeeze out the water in the capitalization of their companies by the accumulation of large surplus reserves. More especially was such a conservative policy required when the extraordinary profits of the steel trade during 1899–1900 are considered.† The interests in control of

* The Iron Age of February 17, 1898, says: "A study of the reports of English and Continental industrial undertakings reveals that very large sums are annually written off from gross profits for depreciation of property, plant, patent rights, etc., this course being in some countries made compulsory by law, and that in good years very considerable amounts are transferred to reserve funds. Nor are, in a good many cases, outlays for improvements charged to capital account, or represented by an enlargement of the funded or floating debt. They are very frequently taken either from current earnings or drawn from special contingent funds. It is astonishing how heavily gross profits are drawn upon by Continental companies before dividends are distributed to stockholders."

† "Recent events have caused much discussion in financial circles of the wisdom or unwisdom of declaring dividends on the stocks of the newly created iron and steel consolidations. . . . It will be better for

the steel trusts, however, rejected a conservative policy; and all the companies paid the regular dividends on their preferred stocks from the date of their organization to January, 1901. The Federal Steel, American Steel and Wire, and National Tube companies, in addition to dividends on their preferred stocks, paid a good return on the common. The combined dividends of the Federal Steel, American Steel and Wire, National Tube, American Bridge, National Steel, American Tin Plate, American Steel Hoop, and American Sheet Steel companies, from their several dates of organization to January 1, 1901, exceeded $30,000,000.

The pursuit of this policy of dividend payment found the steel trusts at the close of 1900 in a position which invited attack. The small amounts of their surplus reserves was in striking contrast with their gigantic profits, out of which, if the corporations had been properly organized, large reserves could have been accumulated. All the "water" of combination still remained in their systems. But little of the shadow of "anticipated profits" had been replaced by the substance of actual earning power. The table on page 196 presents the surplus reserves of six of the corporations which united to form the United States Steel Corporation, at the dates of their last financial statements.*

These reserves, as shown in the last chapter, were much smaller than those carried by railway corporations, and it is to be remembered that a railway should not be required to carry so large a reserve as a manu-

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them and for their stockholders who are investors to accumulate a handsome surplus, so that the dull times which are sure to come in the future may not catch them financially unprepared. The bigger the corporation the greater is the amount of hard cash needed when a pinch comes."—Iron Age, July 6, 1899.

* Iron Age Supplement, December 27, 1900. The financial statement of the American Sheet Steel Company had not yet been issued.

facturing corporation. The 7-per-cent average surplus of the steel trusts was, therefore, much smaller in relation to the reserves of well-managed railway corporations, than would appear from a comparison of these percentages. Not only were the surplus reserves of the steel trusts inadequate on their face, but they would have been turned into deficits by a proper valuation of assets. If we are to assume that the surplus reserves set down in their balance-sheets were actually in existence, we must also assume that their $408,070,200 of capital liabilities were represented by corresponding values of capital and current assets—an assumption which the most ardent defender of the consolidations would have difficulty in making.

Name of Company.	Capital stock.	Bonded debt.	Surplus reserve.	Per cent of surplus to capital.
Federal Steel.....	$99,745,200	$26,806,000.00*	$4,579,641.95	4.6
American Steel and Wire.....	90,000,000	101,271.72	10,062,530.00	9.0
National Tube.....	80,000,000	.....	8,678,364.69	10.8
National Steel.....	59,000,000	4,434,000.00	3,706,390.77	6.3
American Tin Plate.	46,325,000	.....	2,613,426.15	5.6
American Steel Hoop	33,000,000	.....	3,046,896.45	9.2
	$408,070,200	$31,341,271.72	$32,687,250.01	7.0†

It is well known, and in fact, has often been conceded by promoters, that the preferred stock of the trusts represents the capitalized value of the average earning power of the constituent plants in separation, and that the common stock represents the capitalization of the "economies of combination" plus such working capital as was provided by underwriters. In other words, the preferred stock represents value in existence, and the common stock value in prospect. But a balance-sheet is not

* Bonded debt of constituent companies. † Average.

properly concerned with the problematical. It should only deal with the actual. And when we consider that $215,484,000, or 53 per cent, out of a total stock capitalization of the steel trusts of $408,070,200, was common stock, whose value was yet to be demonstrated, the security offered to an investor in the steel stocks by a surplus reserve of $32,687,250 can be estimated at its true value as considerably less than nothing. These balance-sheets, in reality, showed deficits much larger than their apparent surpluses. Such was the result of a policy of liberal dividend payments. After two years of high prices and large profits, the financial position of the steel trusts was but little better than at the outset of their careers.

The depreciation and betterment accounts of the consolidations had not been entirely neglected. Large sums had been spent upon the properties, and mainly out of their working capitals.* The inadequacy of these expenditures only appears when they are compared with the requirements left unsatisfied, which are indicated by the deficiency of surplus reserves. The directors did all in their power to build up the properties placed in their care. With one exception, and that a doubtful one, there is no evidence to show that the business of the steel trusts was not honestly and ably conducted. Whatever could be done to improve the properties was thoroughly accomplished. Considerable economies were effected; and, in particular, the selling methods were revised. The policy of the management in every direction but one was a distinct advance over the former methods of the trade. But in that one deviation from sound business policy lay the root of the whole matter. The policy of dividend payment and small reserves was, in reference

* "Nearly every one of them is using its large working capital . . . for modernizing and improving plant."—Iron Age of June 15, 1899.

to the financial position of the steel trusts, the dead fly in the ointment. The safety and stability of the consolidations were sacrificed to the unreasonable claims of their securities.

The effect of this policy had been to unfit the consolidations to withstand competition. With inadequate surplus reserves, and with high speculative values established for their shares, any reduction of the earnings of the steel trusts was to be feared by their stockholders as a calamity from which there could be no recovery. Such a competition, invited by the policy of the consolidations, confronted them at the beginning of 1901. The origin and nature of this threatened competition will now be considered.

The manufacturing companies which were originally merged into the United States Steel Corporation may be divided, on the basis of their products, into two classes. The Carnegie Steel Company, the Federal Steel Company, and the National Steel Company were large producers of steel billets, ingots, bars, plates, and slabs—products not yet in their final form, and constituting the materials for other branches of the iron and steel industry. The second group, including the National Tube, American Steel and Wire, American Tin Plate, American Steel Hoop, and American Sheet Steel companies were, as their titles indicate, producers of finished steel goods. They obtained most of their materials from the primary producers of steel, and converted them into wire, pipes, tin-plates, sheets, cotton ties, and structural material.

These two groups of companies, from their location, and from the nature of their products, had large dealings together. The Federal Steel Company furnished the Western plants of the American Steel and Wire Company with most of their wire rods, and furnished steel billets to

the Ohio plants of the National Tube and American Bridge companies. The Carnegie Steel Company found its principal market among the finishing mills of the Pittsburg district, including representatives of all the members of the second group of producers. The National Steel Company supplied a portion of the demands of the Tin Plate, Sheet Steel, and Steel Hoop companies, whose financial control was identical with its own.

Between these companies, until the fall of 1900, there was little reason for competition. The mills of the Carnegie Company in Pittsburg were five hundred miles distant from the principal plants of the Federal Steel Company in Chicago. The National Steel Company, although its mills were, properly speaking, within the Pittsburg district, was not yet strong enough to come into serious conflict with the Carnegie Steel Company. As for the finishing companies, their products were so entirely distinct as to afford no ground for competition. So long as the active demand for steel, which had begun in the winter of 1898–'99, should continue, there seemed to be little danger of conflict. Every company was fully occupied, and had no need to go outside its own province to keep its mills running.

The harmony of interests among the various companies, however, was unstable, because it depended upon a restriction of each producer within his own field. If, for any reason, the primary producers should enter the lines of finished material, or if the finishing companies should either attempt independence by producing their own pig iron and steel, or should invade the territory of their fellows, a serious competition would immediately result. The productive capacity of the different companies was so large that successful invasion by any one of them of a field hitherto controlled by others would mean serious injury to the original occupants. The *modus vivendi* of

the iron and steel trade was, therefore, a condition of unstable equilibrium.

With the reaction in the steel market, which began in the spring of 1900 and continued until November of that year, it became evident that the trade must adjust itself to a smaller margin of profits; and the conflicting forces, which had been held in abeyance during the season of prosperity, became alarmingly active and threateningly evident. The stock capitalization of the recently formed consolidations was based upon the large profits of 1899. If dividends were to be continued during periods of reduced demand, every effort must be made to strengthen the position of the companies by reducing expenses. In no other way could this improvement be so readily made as by securing the largest possible measure of independence in the field of raw materials.

In 1882, the Carnegie Steel Company (then Carnegie, Phipps & Company) had inaugurated a policy whose object was to control all the factors contributing to the production of steel, from the ore and coal in the ground to the steel billet and the steel rail. The purchase of a controlling interest in the stock of the H. C. Frick Coke Company, the largest owner of coal-lands and the largest producer of coke in the Connellsville region, insured to Carnegie, Phipps & Company, besides a majority share in the earnings from the sale of coke in the open market, a supply of coke at prices so close to the cost of production as in later years to be a matter of legal complaint from the minority stockholders.* In 1899, the Frick Coke Company owned fully two-thirds of the coal remaining in the Connellsville region. The Carnegie Company also leased 98,000 acres of natural-gas land in western Pennsylvania, and purchased valuable limestone quarries in the Pittsburg district, securing by these several purchases, an in-

* Iron Age, March 1, 1900, p. 21.

dependent supply of fuel and fluxing material, and adding to the earnings of their steel-mills the profits on the production of these materials.

The Carnegie Company was also active in obtaining control of its ore supply and its transportation facilities. By the purchase, in 1896, of a five-sixths interest in the stock of the Oliver Iron Mining Company, which controlled large ore deposits in the Gogebic and Mesaba ranges—holdings which have since been greatly increased —and by a fifty-year contract, made in 1897, with the Rockefeller iron mining and transportation companies, by which the Carnegie Company agreed to pay a royalty of $1.05 per ton for a yearly supply of 1,500,000 tons of soft ore delivered on shipboard, and a further maximum payment of 80 cents per ton for the transportation of this ore to the lower lake ports, the Carnegie Company secured an abundant supply of both hard and soft ores at prices which were not only more stable than those of the open market, but which were lower than the prices paid by outside companies. The Carnegie Company also purchased a controlling interest in the Pittsburg Steamship Company, owning, in 1900, 11 steamships and 2 tugboats, with 6 additional steamers under construction.

It also secured control of the Pittsburg, Bessemer and Lake Erie Railroad, extending from Conneaut, Ohio, where large docks were built and ore-handling machinery installed, to the Carnegie mills at Duquesne. This railroad was reballasted with cinder from the blast-furnaces, and relaid with 100-pound rails. The equipment was replaced by the first steel cars used in the United States, and by the heaviest engines. Through these improvements, the cost of transportation was reduced to 1 mill per ton mile, the lowest cost, with one exception,* of any railroad in

* The Duluth, Mesaba and Northern, formerly controlled by the Rockefellers.

the world. The ownership of an ore fleet made the Carnegie Company independent of the wide fluctuations in lake rates, and their control of the railroad gave them transportation at cost; for the Pittsburg, Bessemer and Lake Erie Railroad, until 1900, had paid no dividends.*

By the close of 1897, the Carnegie Company was almost completely self-sufficient in all the factors of production. The profits which competitors added to their costs were added to its earnings; and the possession of these advantages, along with the admirable equipment of its furnaces and mills, gave to the Carnegie Company the foremost position in the iron and steel trade of the United States, if not in the world.†

The lessons of this example were not lost upon the leaders in the iron and steel consolidations of 1898 and 1899. No sooner were the new companies fairly upon their feet, and no sooner did they realize the necessity of greater economy, than they began a movement toward the attainment of an independence in raw materials similar to that which the Carnegie Company had already achieved. This independence, it should be observed, had been, in every case but one—the National Tube Company —provided for in the original constitution of the companies; and the certain realization of this independence had been urged by the promoters as a most important advantage.

The Federal Steel Company included in its list of properties the Minnesota Iron Company, which controlled 150,300 acres of ore-land in Minnesota and Michigan, and

* Commercial and Financial Chronicle, January 19, 1901, p. 137.

† It is to be noted that a similar policy of independence in the matter of fuel and iron ore had also been carried out at this time (1897) by the Cambria Steel Company (Jones & Laughlin), the Lackawanna Iron and Steel Company, and the Pennsylvania Steel Company; but none of these companies carried it to such profitable lengths as did the Carnegie Company.

which was the largest producer of hard ore on the five ranges. The Federal Steel Company further controlled the Duluth and Iron Range Railroad, which hauled the product of the Minnesota Iron Company, and the Chicago, Lake Shore and Eastern, and Elgin, Joliet and Eastern Railway companies, owning 346 miles of road in Illinois, and furnishing an independent connection between the various plants of the Federal Steel Company in the Chicago district. The Federal Steel Company further included among its holdings the property of the Minnesota Steamship Company, consisting of twelve steel steamers and ten barges, besides valuable dock property on the upper and the lower lakes. This company subsequently acquired a small area of coal-land—1,650 acres—in the Connellsville district, with 11,304 acres of inferior coal in adjoining districts and in West Virginia. The ore supply and the transportation facilities of the Federal Steel Company were not greatly inferior to those of the Carnegie Company, although its supply of Connellsville coking coal was not adequate to its future needs.

The American Steel and Wire Company—a large customer of the Federal Steel Company in the West, and of the Carnegie Steel Company in the Pittsburg district—followed the example of the other organizations. It acquired 2,000 acres of Connellsville coal, and ore properties with an annual output of 916,000 tons. Some of the directors of the American Steel and Wire Company also owned the American Steamship Company, with a fleet of twelve ore steamers, which were afterward transferred to the Steel and Wire Company. On the basis of these advantages, the American Steel and Wire Company proposed to build a large steel plant at Milwaukee which would supply raw material to its Western mills, and in the Pittsburg district began the installation, on Neville's Island, in the Monangahela River, below

Pittsburg, of a complete system of production from ore and coke to wire, wire nails, and springs.*

The National Steel Company had also purchased iron-mines with an annual output of 1,300,000 tons and considerable tracts of coal-land in the Connellsville and adjoining districts, and it began the installation of a furnace capacity sufficient to supply the total requirements of the Tin Plate, Sheet Steel, and Steel Hoop companies,† whose financial control, represented by William and J. H. Moore, was identical with its own.

The National Tube Company adopted the same policy. This company owned no ore or coal, but evidently relied upon its friendly relations with the Federal Steel Company—J. P. Morgan & Company being represented in both—to secure for it ore and coal on favorable terms; for in the fall of 1900 the National Tube Company began the construction of a large open-hearth steel plant at Wheeling, W. Va., which was designed to furnish steel billets to all its plants in the Central West.‡

During 1900, these projects of industrial independence were rapidly taking form, and their approaching consummation menaced the continuance of harmony in the steel trade. In the West, the Federal Steel Company was faced with the danger of losing its market for wire rods, and in the Ohio district, with the loss of a large demand for the output of its Lorain plant. In the Pittsburg district, the Carnegie Company was affected by each one

* Iron Age, December 21, 1899.

† "The American Steel Hoop Company owned a fifth interest in the Mahoning Steel and Ore Company at Hibbing, Minn., producing 1,000,000 tons of ore annually, and a third interest in the coal property of the National Mining Company, comprising 7,000 acres of coal-land at Bridgeville, near Pittsburg."—Supplement to Iron Age, December 27, 1900.

‡ The facts relating to the acquisitions of different companies are mainly derived from Supplement to Iron Age, December 27, 1900.

of the developments in that section. The American Steel and Wire, the Moore companies, and the National Tube Company were all striving to make themselves independent of the Carnegie Company, which had, from the beginning, found its largest market in the mills its would-be rivals now controlled. If their plans should materialize, the Carnegie Company would have to find new markets for its blooms and billets—markets much more difficult to approach than those which the Pittsburg district afforded. Its former customers would produce for themselves the material which they had purchased. The tendency of the iron and steel industry, under the leadership of the consolidations, was toward a declaration of industrial independence, which would leave the Carnegie and the Federal Steel companies to blaze new avenues of demand.

Neither of these companies, however, had any intention of submitting to such a loss of markets. They had long since determined—in the case of the Carnegie Company, according to Mr. Schwab, in the early part of 1900—to resist their former customers by direct competition. If the other large companies refused to buy their steel billets, they would convert those steel billets into wire rods, sheets, and tubes, and sell them in competition with their recalcitrant customers—in other words, they would seek their new markets, not in foreign lands or in new forms of production, but in the preserves of their rivals.

The Federal Steel Company led off in this countermovement by threatening to build wire mills unless the American Steel and Wire Company should abandon its plan of producing its own material, and renew its wire-rod contract with the Federal Steel Company. The Steel and Wire Company saw no present profit in competition, and its Western extensions were abandoned.

With the situation in the Pittsburg district, the Car-

negie Company proposed to deal in similar fashion. On January 12, 1901, this company announced the proposed construction of a large tube mill at Conneaut, Ohio, having chosen this location on Lake Erie, both because of the railway discrimination against Pittsburg in east-bound freights, and because the empty ore cars returning from Pittsburg could be filled with coke for the tube works. They also proposed to build sheet mills at Homestead; and it was intimated that other lines of finished material would be invaded.* At the same time, the Carnegie Company was preparing to secure an independent line to the seaboard by way of the Western Maryland Railroad and the abandoned route of the South Pennsylvania.

These announcements caused the most serious anxiety to the leaders of the newly formed consolidations in the Central West. In the Chicago district, it was generally believed that the carrying out of the plans of independence conceived by the management of the American Steel and Wire Company had only been postponed to a more favorable season. The fighting strength of these two companies was so nearly equal that permanent peace could

* The Iron Age of January 17, 1901, describes the situation as follows: "Avowedly the Carnegie Steel Company have decided that in view of recent developments their policy must be to carry the processes of manufacture forward from the ore and coal in the ground to the finished marketable product. In other words, ultimately no steel will be marketed in the form of the billet. The Carnegie Steel Company now produce steel rails, structural material, and plates. Quite recently the manufacture of axles has been added. . . . In a few months the plant now building for making steel bars and allied products will be completed. The Conneaut plant will take care of the lines of pipes and tubing, which is regarded as a branch which is bound to develop largely. It is understood that plans have been completed for the building of a very large sheet mill, if in fact the contracts are not already placed for the machinery.

"An outlet for additional steel is to be sought in wire rods, although that will probably not be taken in hand for some time to come."

not be expected in view of the large inducements offered by independent control of the materials of production. At any time, the harmony in the steel trade of this section might be destroyed, and monopoly earnings reduced to a competitive basis. In the Pittsburg district, the Carnegie Company threatened with its competition the four Moore companies, the Steel and Wire Company, and the National Tube Company. There was a general belief in the sincerity of Mr. Carnegie's emphatic declarations, and the future of harmonious control in the Pittsburg district appeared very doubtful.* The iron and steel trade of the Middle West seemed about to descend into the depths of a competitive struggle, wherein the seller, who for a short time had been the master of the buyer, should again be his servant. Such a contingency it was the paramount interest of the consolidations to avoid.

The situation in the Pittsburg district was of peculiar menace. The Carnegie Steel Company owned the most complete, the best-equipped, and the best-managed steel plant in the United States. The perfection of its equipment in point of independent supplies of materials and transportation service has been already described. No one of its rivals was worthy to be compared with it in point of self-sufficiency of production. This equipment supplied ore and fuel to the mills which were grouped so closely about Pittsburg that the president of the company was able to visit some department of each mill on

* Commercial and Financial Chronicle, January 26, 1901, quoting an interview with Andrew Carnegie: "The immediate cause of whatever trouble exists in the trade is probably the announcement that the Carnegie Company is about to construct extensive works for the manufacture of tubes. . . . The National Tube Company formerly obtained its steel billets from the Carnegie Company, but decided to erect blast-furnaces and mills to supply itself. Naturally, the Carnegie Company then announced that it would be forced to erect mills to finish its own product into tubes."

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successive days. The Edgar Thompson furnaces and mills were at Bessemer, two miles from Pittsburg; the Duquesne furnaces and mills, four miles from Pittsburg; and the Homestead Steel Works, one mile from the city. Besides these larger works, there were located in, or immediately adjoining the city the upper and lower Union Mills, the Carrie and Lucy Furnaces, and the Howard Axle Works. All these plants were connected by the Union Railway, with thirty-nine miles of track, which in turn connected with the Pittsburg, Bessemer and Lake Erie Railroad to the north. This arrangement of mines, coke ovens, and mills was the most favorable that could have been devised for economical production.

The mills of the Carnegie Steel Company were concentrated at the point of largest present advantage, where materials could be most easily assembled, and from which the largest markets could be most easily reached. It was this fact of concentration even more than their superior facilities which gave to the Carnegie Company their most pronounced advantage. The mills of their rivals were too widely scattered. Their location antedated the recognition of Pittsburg as the natural seat of the iron and steel industry. For example, the plants of the National Steel Company were at Youngstown, Columbus, Bellaire Mills, and Mingo Junction in Ohio, and at New Castle, Sharon, and Uniontown in Pennsylvania. All of these plants could not have equal advantages in obtaining materials, and no one of them was so well situated as the mills at Pittsburg. The plants of the National Tube Company were even more scattered, and those of the American Steel and Wire Company were distributed over the whole face of the land.

A grant of land, a cash bonus, ten years' exemption from taxation, a local connection, any one of a number of causes entirely disconnected from considerations of eco-

nomic production, had determined the original location of these plants, the burden of whose maladjustment the steel trusts had now to assume. The plan of concentration on Neville's Island, which the American Steel and Wire Company had already begun to execute, was an evident recognition, on their part, of the superior economy of concentrated production, in power, in labor, in superintendence, and in the provision of materials. Mr. Carnegie had anticipated his rivals by twenty years. All the benefits of centralization which they were striving for, he had long since achieved.

The advantages of the Carnegie Company did not stop here. Their mechanical equipment was superior to that of any other mills, and their business was the best managed of any in the country. It is not meant by the first statement to imply that the consolidations did not include individual plants which were the equal of the Carnegie mills. The plant of the National Steel Company at Youngstown, for example, was not inferior to anything in Pittsburg. It is, however, true that the average excellence of the Carnegie equipment was far above the average of any of its rivals. The superior equipment of the Carnegie works was the result of a policy of large expenditure upon betterments persistently pursued for many years. "Every new process and every new machine which would in any way increase the efficiency, reduce the cost, and improve the product of the Carnegie Company has been adopted, until this great concern has raised the physical condition of its mills to a point which is unsurpassed." * Dividends had never been considered by the management. Improvement had been the one thing thought of. During the years 1898 and 1899, the Carnegie Company expended out of earnings upon new construction and betterments no less a sum than

* United States Investor, February 9, 1901.

$20,000,000.* The nature of this policy of the investment of earnings in improvements may be illustrated by a comparative statement of the equipment of the Homestead mills in 1890 and 1898: †

1890

1. Two 5-ton Bessemer converters.
2. Seven open-hearth furnaces—one 15-ton, four 20-ton, two 35-ton.
3. One 28-inch blooming-mill.
4. One 23-inch and one 33-inch train for structural shapes.
5. One 10-inch mill.
6. One 32-inch slabbing-mill for rolling heavy ingots.
7. One 120-inch plate-mill.

Annual capacity, 295,000 tons.

1898

1. Two 10-ton Bessemer converters, one 12-ton.
2. Thirty open-hearth furnaces—one 12-ton, six 25-ton, eight 35-ton, and fifteen 40-ton.
3. One 28-inch and one 38-inch blooming-mill.
4. One 23-inch and one 33-inch train for structural shapes.
5. One 10-inch mill.
6. One 32-inch slabbing-mill.
7. One 40-inch cogging-mill.
8. One 35-inch beam-mill.
9. One 119-inch plate-mill.
10. One 3,000-ton and one 10,000-ton hydraulic press.
11. Steel foundry, press shop, and machine shop.

Annual capacity, 2,260,000 tons.

These represent the improvements at only one of the Carnegie plants, made during a season of depression, and paid for out of earnings. The increased earning power here represented was clear gain. No deductions had to be made for interest payments. The policy of the Carnegie

* Age of Steel, January, 1900, special anniversary edition, p. 102.

† The facts relating to Carnegie mills are taken from the Directory of Iron and Steel Works, published by the American Iron and Steel Association.

Company was purely industrial. Financial considerations had little weight. Its shares were never in the market. The greater part of its profits was each year invested in the plant. As Mr. Carnegie remarked, he and his partners knew little about the manufacture of stocks and bonds. They were only conversant with the manufacture of steel.

The management of the Carnegie Company represented the acme of productive efficiency. Every officer had risen from the ranks by dint of compelling merit. Every head of a department had an interest in the business apart from his salary. Trade unionism had been banished from the mills in 1892, and the workmen were spurred on by high wages and the promise of advancement. No visitor to the Carnegie mills could fail to be impressed with the intensity of the effort and the strained attention evident in every department. None but the strongest could stand the terrific pace. Breakdowns were frequent at thirty-five, men were old at forty-five. The famous "iron-clad agreement," it has been claimed, was designed to dispense peaceably with partners who had outlived their usefulness. Not only was money lavishly spent on salaries and wages, but large sums were paid for information. The result of these advantages and this policy appeared in the revelations of the Carnegie-Frick controversy, when the plaintiff claimed that the total profits of the company for 1898–'99 exceeded $70,000,000. Such was the company that threatened the steel trusts with its competition.*

* The situation was made more critical by the fact that the man who had built up the Carnegie Company was still in active control of its affairs and directing its policy.

The Iron Age, on the occasion of his proposed retirement, on May 11, 1899, remarked as follows:

"Mr. Carnegie has carried the American iron trade with him. He has been the unswerving advocate and his plants the most shining

The results of this competition were clearly foreseen by those in control of the consolidations. In view of the inadequacy of their surplus reserves, taken in connection with their other disadvantages, a general decrease in profits would be the signal for the passing of dividends, and a heavy fall in the value of their stocks. Not only this, but industrial warfare demands new appliances and large construction, which could only be paid for by issuing bonds or adopting the more dangerous course of increasing floating debt. In either event, the decline in the value of stocks due to decreased earnings would be confirmed for years by placing fixed charges ahead of dividends. The steel stocks were but weakly held. With the possible exception of National Tube preferred, they had no investment standing. Severe competition would reduce them to the level of National Starch, United States Rubber, Union Steel and Chain, and the other outcasts of the Stock Exchange. The interests in control of the consolidations owed it to their stockholders to use every means in their power to avert the impending calamity.

Not only were the leaders of the steel trusts under obligations to their stockholders to prevent the threatened disaster, but considerations of private advantage inclined them to the same course. The flotation of the steel trusts had involved the provision of large sums by underwriters, who, with promoters and the original owners of the vari-

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examples of the policy of running to full capacity. He has been the man above all others who created and fostered the ambition of record-breaking. He has more than any other producer spent money lavishly in equipping his plants with the very latest appliances, who has invested earnings most promptly in enlargements. He has set a pace in the iron trade of this country which all have been forced to follow. He has been more than any man the type of the untiring, incalculable exponent of unrestrained competition which the younger generation of business men and manufacturers may admire but do not care to imitate."

ous plants, expected to make large profits from the sale of stock to the public. These expectations of profit had been disappointed. The securities of the steel companies first formed—Federal Steel and American Steel and Wire—went off readily enough, but the trust business was so greatly overdone during the first six months of 1899 that, in the flotation of most of the consolidations organized during that period, underwriters were obliged to take and pay for large blocks of stock, and to hold this stock for a more favorable market, being unable to take their profits. The offering of trust shares was too great for easy consumption; the public appetite was dulled by huge feeding. During the last six months of this year, a general decline took place from the list prices of the trust stocks, the steel stocks suffering with the rest. This decline was accentuated by the panic of December 18, 1899, and continued, with but little check, until October, 1900. Underwriters and promoters, unable in such a market to dispose of their holdings of trust stocks profitably or safely, found themselves in the position of controlling the policy of the new companies.

Steel was not popular with the speculators, and, in a declining market, the steel stockholders were heavy sufferers. After the certainty of Republican victory had strengthened the position of the consolidations, however, these stocks began to advance in sympathy with the general movement. The table on page 214 shows the gains recorded on the principal steel stocks from October, 1900, to January, 1901.

The long-deferred hopes of the insiders seemed about to be realized. The public was willing to buy their shares, and, in the unreasoning market which followed the election, the higher the price of a stock was pushed the more eager were the speculators to buy it. Sales of all the steel stocks showed considerable gains. The underwriters and

promoters were at last able to sell their holdings on an advancing market, and to take their long-deferred reward for services rendered. Every indication pointed to a great bull movement in steel stocks, which was supported and strengthened by a rising tide of demand in the steel market.

	COMMON.		PREFERRED.	
	Lowest.	Highest.	Lowest.	Highest.
Federal Steel	31⅜	58¼	62	79½
American Steel and Wire	30½	47½	71⅞	89
National Tube	45¾	69⅞	92⅝	105½
National Steel	24	43	82	96¾
American Tin Plate	26⅞	57⅛	79½	92
American Steel Hoop	17½	32⅞	65	79

The realization of deferred profits, which the advancing market was making possible, would be broken off by the threatened outbreak of hostilities between the great companies, and those in control of the steel trusts had, therefore, a double motive to prevent competition. Their obligations to the other stockholders of the steel trusts, and their own interests as the largest stockholders, made it imperative that the values of the steel stocks should be protected. Failure to arrange an amicable settlement of their difficulties would not only inflict severe losses upon them, but would lock up their cash resources at a time when the formulation of new projects of consolidation promised large profits.

The financial situation in the beginning of 1901 must be clearly understood if the formation of the United States Steel Corporation is to be explained. The problem presented by the attitude of the Carnegie Steel Company was not to be solved by exclusive reference to industrial conditions. If the consolidations had been controlled by steel producers, there is much reason to suppose that a

fight would have been made. The passing of dividends could not affect the control. The absence of indebtedness gave a reserve for competition in the issue of bonds equal to the minimum earning capacity of the plants. The conflict would have been severe, but the Carnegie Company, in spite of its strength, could not, in all reasonable probability, have ruined its debt-free competitors. It could only force them to enlarge the field of their operations by new construction, and, when an armistice had been declared, the other steel consolidations would retain their control of the raw materials, the capacity of their plants would be enlarged, their cash reserves would be increased, and if bonds had been issued, the assets side of their balance-sheets would have been correspondingly increased. The next upward movement in the iron and steel trade would have found the consolidations ready for the demand, and would have enabled them to recoup their losses by obtaining a larger share of the rapidly increasing demand for iron and steel.

Periodical competition has no terrors for industrial industry. It is only financial industry which dreads a reduction of profits. The Midvale Steel Company, or Jones and Laughlin, Limited, can pass through a period of depression without disaster, and with substantial increase of plant and equipment. The National Tube Company could have done the same if its preferred stock had not contained the cumulative feature, and if its securities had been held for investment and not for sale.

As it was, however, it was necessary to the controlling interests in the steel trusts, not merely in order to protect their own holdings, but to retain their prestige with the speculative public, and to prevent a general decline in stock values, that the threatened steel war should be avoided. The steel industry, as such, was in no danger from competition, but the financial control of

the steel industry was in great danger, and that control must be protected. Mr. Carnegie could not have chosen a better time to make his attack than when the leading financial interests of the country were anxious to engage in new operations, to whose success a decline in the value of the steel stocks might have proved disastrous—disastrous, not merely because of the loss of confidence in their projects which the passing of steel dividends would cause, and the chill and paralysis of speculation which would follow, but because of the locking up of capital in securities whose values, raised with so much care and after so long a time, the threatened competition would practically destroy. Mr. Morgan and his friends would have been unworthy the further confidence of the investing and speculative public had they not done everything in their power to avert the disaster threatened by the steel war.

There were only two ways by which the controlling interests of the steel trusts could avert the impending calamity. One was to make an abject surrender to the Carnegie Company. This would have inflicted a severe blow upon their credit, and would have meant giving up all the plans of industrial independence which have been included in their schedules of advantages, and upon the attainment of which their capitalization had been in part based, besides leaving the danger of competition still present and no longer concealed. The other was to adopt a plan which would harmonize all the conflicting interests by uniting them into one corporation, organized, like the Federal Steel Company, to own a majority interest in the various steel companies which it was necessary to control, and in this way to remove permanently the danger of competition.

In a declining market the second alternative could hardly have been chosen. But in the great bull movement which culminated in May, 1901, all things were possible.

The United States Steel Corporation was backed by the strongest financial houses in the United States. It included the Carnegie Company, the strongest steel company in the world; it completely realized the ideal of independence for which all the merging companies had been striving; it exorcised the forbidding specter of competition; and it was offered to the public at a time when the speculator was able to appreciate these advantages at something more than their real value.

CHAPTER XII

THE PROVISION OF NEW CAPITAL

EVERY prosperous corporation is constantly adding to its equipment in order to increase its profits. Of the reasons which make a policy of growth imperative, the most important is the fact that increased earning power is a defense against competition. If the demand for its products increases, a corporation must enlarge its facilities to supply the demand, in fear that if competitors were permitted to occupy the new territory without a struggle, they might follow up this conquest by an approach to closer quarters. An illustration is offered by the policy of progressive railway corporations in "developing" the territory tributary to their lines in order to exclude possible competition. The Pennsylvania Railroad Company, for example, by its purchase of the Long Island Railway Company, has obtained control of the territory into which the manufacturing industries of New York will probably expand, thus securing control of a large prospective traffic.* During the term of office of President Roberts, the property of the Pennsylvania was largely reconstructed in order to offset, by a decrease in operating expenses, the reduction in rates which the severe competition of the other trunk lines brought about. The Baldwin Lo-

* See Commercial and Financial Chronicle, vol. lxxii, pp. 490 and 1279.

comotive Works has more than doubled its capacity in the last ten years, producing 899 locomotives, averaging 92,378 pounds, in 1891, and 1,375 locomotives, averaging 128,920 pounds, in 1901. The growth in equipment which made possible this increase in output was due, not merely to the desire of the owners for larger profits, but to the fear lest competition should be encouraged by these increased orders, which might become dangerous.

A forcible illustration of the reasons for providing additional funds is given in a recent circular of the president of the Central Union (Bell) Telephone Company to the stockholders: "After two months' investigation . . . I find it imperatively necessary that at least $3,000,000 be provided without delay. . . . The people of the States of Illinois, Indiana, Ohio, and Iowa want telephone service. Will you supply it, or must some one else? Are you doing it with fewer than 70,000 stations? No. When you have 300,000 exchange stations, then you have a good start, not before. When you have 150,000 exchange stations, at proper rates, you will have a plant upon which you can earn something with which to build up the second 150,000.

"With your present 70,000 stations . . . you can not build up anything, except opposition. You are not satisfying the public, because your system does not reach far enough. There are scores of villages and small towns, taken as a whole, that should have 50,000 telephones, and in which the company has not one single instrument. . . . What you want done must be done now. Later on, and a very little later at that, will be too late." *

The rapid improvement in every branch of production is forcing manufacturers and railroads to enlarge and remodel their plants, if they would hold their market. The blast-furnace, for example, has increased more than

* Commercial and Financial Chronicle, June 15, 1901.

50 per cent in ten years. During the same period, the continuous process of steel-making, by which the molten pig iron is carried directly to the converter, has also been generally introduced. All materials in modern steel works are now handled by automatic machinery. Steel-makers must remodel their plants to include these improvements.* If this is not done, in a period of low prices, their progressive competitors may undersell them. Opportunities for growth by the acquisition of supplies of raw material at low prices are also often presented. The purchase of the sources of their raw material supply by the Carnegie Steel Company has been already referred to.

The president of the Colorado Fuel and Iron Company in his report to the stockholders for 1899 shows the necessity for improvements in plant: "The company can not expect to maintain even its present earning capacity unless provision is made for supplying the constantly growing demand for its products. It will also be necessary to make improvements in all departments in the direction of reducing costs to keep pace with competitors in other sections of the country. In the fuel department there is immediate necessity for the construction of 200 additional coke-ovens. All mines should be equipped with mining machines and electric or other haulage systems. In the iron department a liberal expenditure of capital would reduce costs to a basis which would enable the company to extend its markets in the United States and engage in export business." †

This increased equipment consists either of "capital assets," such as land, mines, buildings, machinery, or in-

* For an admirable account of recent improvements in iron and steel practise, see American Engineering Competition, published by Harpers. This book reprints a series of letters written by an English engineer to the London Times.

† Commercial and Financial Chronicle, vol. lxix, p. 540.

vestments, or of "current assets"—money, materials, and bills receivable. The two elements of productive equipment must increase together. If the so-called fixed capital of a company increases, the floating capital must increase also. An extension to the plant necessitates a larger investment in materials and accounts in order to operate the new equipment and market its product.

How, then, granting the necessity of new equipment, shall the funds which are necessary to purchase this new equipment be provided? Various alternatives are presented to a corporation desiring to increase its facilities: (1) Its directors may appropriate the money necessary out of profits; (2) they may issue stock; (3) they may borrow money either on short-time obligations from the banks or by selling mortgage bonds to the investor; or (4) they may employ these various methods in combination. In a preceding chapter it was shown that a well-managed corporation will rely largely upon the first of the three methods available for raising new capital—the investment of profits in equipment. The requirements of the investor enforce a policy of paying out to the stockholders no more than a portion of the profits of a corporation. The larger part of the amount reserved out of profits will naturally find its way into the plant. But aside from this universal practise of reserving profits for the benefit of surplus reserve, the question also arises, Shall a corporation limit itself to this single source of supply when funds are required for purchase or construction?

There is much to be said in the affirmative. A growth which is made out of profits without increase of stock or debt is a natural growth. It is made gradually and cautiously, and therefore safely. The stockholders are spending their own profits and are likely to be careful in their disbursements. The new equipment is more certain to be profitable than when money is obtained from the

outside by the sale of stocks and bonds and expended on a large scale. The growth of the Baldwin Locomotive Works is an excellent illustration of this method. All the money invested in the plant of this concern during the last ten years, a period during which, as I have shown, its capacity was more than doubled, has been taken out of profits.* None has come in from the outside. The phenomenal growth of the Carnegie Company during the same period is another illustration of the same principle. There is apparently no reason to doubt that any well-managed business, if its owners are content to postpone taking profits for an indefinite period, can, by the investment of these profits in plant and equipment, expand its capacity as rapidly as the demand will warrant, and can sometimes—as witness the growth of the two companies just mentioned—attain to colossal proportions.

The owners of few corporations, however, no matter how conservative may be the policy which they support, are willing to wait indefinitely for their dividends. They demand the largest disbursements of profits consistent with safety. As a result, most corporations, unable to forego or suspend dividend payment, are frequently faced with the necessity of raising money by the sale of stocks, notes, or bonds.

The president of the Colorado Fuel and Iron Company presents the usual argument in favor of issuing new capital in substance as follows: If these improvements and enlargements are made from earnings, it would indefinitely postpone the payment of dividends and waste much valuable time. If new capital is secured, the improvements can

* It may be observed that from the beginning of its history the Baldwin Locomotive Works has received no assistance from outside investors. Large amounts have been turned into the plant by the partners, as was also true of Mr. Carnegie and his partners, but practically all of this money came from the operation of their respective plants.

be made at once, and all earnings can be applied to the payment of dividends. There is every reason to believe that new capital can be secured on favorable terms, and that the increased earnings resulting from the proposed improvements and enlargements will not only provide for liberal returns to the new capital, but will also increase the dividends of the present stockholders. Understanding the necessity of additional funds for expenditure on equipment, we have now to discuss the relative advantage of the sale of stock over the sale of certificates of indebtedness as means by which this money may be provided.

Next to the investment of profits, the issue of new stock is, in most cases, the best method of securing capital funds. A share of stock has been already defined as a certificate of ownership to a proportionate part of the corporation issuing the stock. The result of increasing the stock capital is to multiply the shares of ownership. The method of raising funds by the sale of stock has much to commend it.

The original stockholders have the privilege of participating in the issue, in this way retaining their proportionate share of ownership in the corporation. When a prosperous company increases its stock, it is customary for most of the new issue to be taken by the existing stockholders. If the issue is one of full-paid stock, in case the stockholders do not have the funds in hand, they can readily borrow on the new stock up to within a small per cent of its value, and use the dividends to offset the interest until they are able to repay the loan. A good example of the possibility of inside subscription is offered by the growth of the Lackawanna Iron and Steel Company, which has increased its full-paid capital stock from $3,750,000 to $40,000,000, the old stockholders taking most of the new issues.

The expenditure of funds secured by the sale of stock

is also likely to be more conservative than when money is borrowed. The stockholders are usually spending their own money, and are reasonably certain to spend it with prudence. Even if the money is contributed by outsiders, the representatives of the original stockholders will use the same care in its disbursement. Their proportionate share of profits has been lessened by the creation of new claimants, and if the per cent of dividend is to be increased, the proceeds of the sale of the new shares must be profitably invested.*

A third advantage secured to a corporation by the issue of stock, is found in the enlistment of influential support by the sale of shares to persons who are in a position to benefit the company. The stock of a coal-mining or steel-manufacturing company, for example, may be advantageously sold to railway directors, who are in position, without in any way prejudicing the interests of the railway company, to influence business for their other connections. Certain important advantages are also secured by placing stock with men who are prominent in banking circles.

The most important consideration, however, which should influence a corporation to increase its stock, rather than to increase its debt, is the consideration of safety. Dividends on stock, although it is highly advantageous to the standing of a corporation that they should be regularly paid, are an optional, not an obligatory charge. If dividends are not earned, they need not be paid. Interest, on the other hand, is an unconditional and absolute charge against income. It must be paid, or the courts may seize

* The recent failure of the Colorado Fuel and Iron Company to continue the dividends on its common stock which were begun in 1901 at the rate of 7 per cent, was due to the issue of $12,000,000 of new stock for improvements, which have not, up to the date of the present writing, been completed so as to produce a revenue for the company.

the property of the corporation for the benefit of its creditors. When the slightest doubt exists as to the ability of a corporation, in bad years as well as in good years, to earn 5 per cent on the capital which it proposes to issue, then stock should be sold and debt should not be created. As long as a corporation has to meet only its obligations to stockholders, and while receipts equal expenditures, its solvency is assured.

A strange confusion of ideas exists in the minds of investors in reference to this difference between dividends as optional payments to stockholders, and interest as obligatory payments to creditors, if we may judge from certain official explanations of the proposition to retire $200,000,000 of the 7-per-cent preferred stock of the United States Steel Corporation by issuing 5-per-cent bonds in their stead. Among the other advantages of the conversion scheme, it was urged that the charges of the corporation would be reduced, apparently no account being taken of the fact that an interest charge was substituted for the optional dividends on the preferred stock.* The argument of the Trehane circular, in opposition to the conversion plan, addressed in the form of an open letter to the chairman of the finance committee of the Steel Corporation, gives forcible emphasis to the importance of this distinction. The language of the circular is as follows: "You evidence a mental confusion as to the difference between an interest payment and a dividend on stock, and also as to the difference between a corporation and the stockholders who are partners in the corporation. An interest payment is something which the corporation is obliged to pay out of its assets whether times are good or bad. A dividend on stock is not a charge on assets. If

* See circular of the finance committee of the Steel Corporation and editorial comment. Commercial and Financial Chronicle, April 26, 1902.

no profits are earned, no dividend is payable. If profits are earned, the corporation first looks after its own interests, and then if there is anything left for which it has no use it distributes it in dividends to the partners in the concern—the stockholders. The rate of dividend does not matter in the least to the corporation, because if it had in any way needed the money the corporation could have kept it all and paid no dividends. . . . Instead of retiring $200,000,000 of preferred stock you actually convert that amount into a mortgage debt, and burden the assets of the corporation with a new annual fixed charge of $13,500,000. You make the preferred stock junior to this new mortgage, and you lessen the borrowing power of the corporation by the amount of this new debt." * As a statement of principle, the opinions of this circular can be indorsed. As between stock and bonds, if safety is considered of primary importance, conservative management will obtain funds by the issue of stock.

Granting the desirability of raising funds by the sale of stock, we find that money may be obtained from this source as follows: (1) By a sale of stock reserved in the treasury; (2) by assessment upon partly paid stock; (3) by the issue of new full-paid stock. The first two methods are generally regarded as undesirable. A large supply of treasury stock is, in a sense, a menace to the market value of the shares. There is always danger that the directors may find a pretext for issuing the treasury stock. Aside from this consideration, there is neither advantage nor disadvantage in a corporation holding its own stock in the treasury. Stockholders can always meet to authorize further issues, if such are desirable. The case is somewhat different with treasury bonds. In the railway organizations of recent years, large bond reserves issuable over a series of years have been provided for, the

* See New York Times, May 16, 1902.

reason being the fear of the reorganizers that the stockholders might not authorize a necessary issue of bonds if that were left to their discretion. The plan of reorganization usually provides that these bonds may be issued from time to time for improvements and extensions of the property.

There is less question as to the wisdom of issuing assessable or partly paid stock. The unpaid portion of such stock operates to depress its value. Investors can never be certain as to their liability for fresh contributions. Whenever a call is made, those holders who are unable to respond, throw their stock on the market for a forced sale, and the periodical sales make the value of partly paid shares highly irregular. It is also possible for unscrupulous directors to enrich themselves at the expense of stockholders by buying the stock on these declines and selling at the advance, which, since the real value of the stock has been increased by the assessment, is certain to follow. From the investor's standpoint, there is no question but that assessable stock is undesirable. The fact is so well fixed in the minds of investors that, outside of Philadelphia, where assessable stock is still issued, the question is not a practical one. No investor of ordinary caution will buy assessable stock.*

Having fixed upon new full-paid stock as the best form of stock issue, we have next to inquire, Should the stock be preferred or common, and if the latter, should the cumulative feature be included? The answers to these questions will depend upon circumstances. If the corporation which proposes to increase its capital has hitherto issued only one kind of stock, its original owners are unlikely to consent to the issue of preferred stock without provision for its early retirement. They

* See United States Investor, vol. xiii, pp. 479, 480, for an extended criticism of assessable stock.

are even less likely to consent to the insertion of the cumulative feature in the new contract. If a sinking-fund is established, however, by which a portion of the preferred stock issue is each year retired at a stated price, the holder of common stock can not reasonably object to the issue of cumulative preferred stock to a moderate amount, for the purpose of increasing the income of the corporation. The advantage which is gained by the sale of cumulative preferred stock under these circumstances, is the higher price which can be obtained. If the company is prosperous, there is a reasonable assurance of a gradual reduction in its amount and of its early retirement.

It must be admitted, however, that the issue of preferred stock is almost never employed by the best-managed corporations as a means of obtaining funds. Preferred stock, except when it represents an exchange for bonds in reorganizations, has largely disappeared from railway balance-sheets. Industrial companies, which originally organized with one class of stock, have shown no disposition to place preferred stock ahead of the common. The general practise has been to issue new common stock. In 1901, for example, out of $284,500,000 of railroad stocks listed on the New York Stock Exchange, only $54,500,000, or 19.1 per cent, consisted of preferred stock. No reason, other than a wholesome dread of the superior advantages possessed by the preference stockholder, can be assigned to explain this general aversion to preferred stock. This reason, however, if we may judge from the effect of cumulative preferred stock in depleting the cash resources of the trusts, is abundantly sufficient.

We come now to consider the advantages and limitations of corporation-borrowing as a means of obtaining funds. Only the general principles will be discussed in

this place, the specific questions affecting the bonds of manufacturing companies being reserved for a succeeding chapter.

As a general proposition, the basis for which has been explained in the preceding pages, the issue of stock is preferable to the increase of debt. Especially where any doubt exists as to the ability of a corporation, under all circumstances, to meet its fixed charges, the issue of stock is to be preferred. Circumstances may arise, however, under which the borrowing of money as a means of obtaining funds may be not merely necessary, but highly desirable. A corporation may borrow money by the sale of two kinds of certificates of indebtedness: (1) It may sell its notes or short-time obligations, either specially secured by collateral, indorsement, or general assets and high credit; (2) it may sell a series of mortgage notes secured by a lien upon specified portions of its property and payable after a term of years. These notes are called bonds. The important distinction between the two forms of indebtedness is one of time. The first usually matures in a few months, while the principal of bonds need not, in some cases, be provided for before ninety-nine years from the date of issue. The first form of indebtedness is usually called "floating" debt, and the second "funded" debt.

Most business enterprises in good credit have frequent occasion to borrow money for a short time to anticipate the proceeds of bills receivable or the sale of stocks or bonds. The Pennsylvania Railroad Company, for example, in its balance-sheet of December 31, 1900, showed a liability of $20,650,000 under the title "collateral investment obligations." This represented the loans incurred in the purchase of the stocks of certain other railroads whose policy the Pennsylvania wished to control. These loans were secured in part by the deposit of the stocks purchased, and in part by other securities. These loans

would afterward be taken up by the proceeds of bond sales. This represents one form of floating debt. Another method by which a corporation may borrow money is by the sale of commercial paper. A manufacturing or mercantile corporation whose sales are made for long-time bills will generally discount these bills at the banks, to obtain the money needed to carry on its business.*

The foregoing are the only conditions under which a corporation can safely incur a loan which must be repaid within six months or a year. Such loans as these liquidate themselves in the course of a company's business. The money to pay them is assured at the time when they are contracted, and they do not endanger, by their early maturity, the solvency of the borrowing company. A large floating debt incurred for any other purpose, if unsecured by free assets,† at all times contains the probability of embarrassment and the possibility of bankruptcy. It is true that if a corporation carries a line of high-grade securities in its treasury, possession of which is not necessary to the conduct of its business on such a security, the corporation may safely borrow from the bank. If the loan is called at maturity, the means of payment are provided. Without such collateral, however, a corporation can not safely sell its short-time paper, except for the two purposes above described. A corporation can

* The discounts of the American Woolen Company, for example, are very large.

† By "free assets" is primarily meant securities whose possession is not essential to the business of the corporation. As a rule, however, such holdings are not found. The $3,500,000 of stock of the Western Union Telegraph Company, which was at one time sold by the Baltimore and Ohio, is an example of free assets. Railway companies, for example, hold large amounts of securities in their treasuries, but these represent the control of properties which are essential to the prosperity of the holding company. They are not, therefore, in most cases available for collateral; hence to deposit them as security for loans would be to risk losing them.

not safely borrow money from a bank to buy out a competitor, nor to purchase supplies, nor to invest in new equipment; in other words, a corporation should not sell its short-time paper for money with which to increase its productive capacity. All these are legitimate channels of investment, but their returns are too far in the future to take care of a short-time loan. If money is borrowed for such purposes, it must be repaid long before a sinking-fund equal to the principal of the debt can be accumulated out of the revenue of the investment.

When floating debt is incurred, therefore, provision should be made either for renewing these short loans at maturity, or for raising the money on short notice to pay them. This can be done ordinarily in two ways: (1) Another loan can be placed elsewhere, or (2) stock or bonds can be sold up to the amount of the loan. These expedients answer under ordinary conditions, but in a financial crisis, when no money can be borrowed and no securities sold, they are worthless. Even in a period of ordinary stringency, floating debt can be funded only at heavy cost in discounts or premiums, and in a money famine a large floating debt means a receivership for the corporation which is unfortunate enough to owe money which it can not pay. Most of the railway receiverships have been due to inability of corporations to take care of their floating debts. Indeed, it has often happened—the case of the Norfolk and Western receivership of 1894 being one of the most conspicuous—that a floating debt incurred in anticipation of bond sales has been the means of bankrupting a corporation.

With the majority of corporations, however, conservative management would confine its floating debt to the ordinary discounts of trade, and would condemn the policy of borrowing in anticipation of the sale of securities, which a strong company may safely adopt. We con-

clude, therefore, that a well-managed corporation will never incur a floating debt, the funds for the payment of which are not clearly in view at the time the loans are made. In other words, a corporation should never provide capital funds by incurring a floating debt. If its directors desire to borrow money to extend its equipment, they can do so with safety only by selling its mortgage or debenture bonds. The general conditions and limitations of bond issues will be the subject of the next chapter.

CHAPTER XIII

THE CONDITIONS OF BOND ISSUE

Most important among the advantages which a corporation gains from a bond issue is a larger return to the stockholders than if stock were sold. The rate of profit on money borrowed by a prosperous corporation is generally larger than the rate of interest paid on the bonds. The bondholder, in return for the assurance of the security of his principal and of the regular payment of interest, is willing to buy bonds paying him only $3\frac{1}{2}$ to $4\frac{1}{2}$ per cent. The company which has sold him certificates of indebtedness can usually employ the proceeds in its business so as to earn a much larger per cent. The earnings of the Pennsylvania Railroad Company, for example, on its entire capital, stock and bonds included, have averaged 8.7 per cent for the last five years. During this period, the bonds of this corporation have sold at such a premium that the investor received on an average only 3.9 per cent on the purchase price. In other words, the Pennsylvania Railroad can earn 8.7 per cent on money which costs the corporation 3.9 per cent. It may be argued that a similar advantage could be secured from the sale of stock. Pennsylvania stock during this period sold at a price which netted 4.1 per cent to the investor. The corporation could have raised money on the sale of its stock to

almost as good advantage as by the sale of bonds. Why then were bonds issued?

The answer to this question is found in the difference between the claims of the two interests. The bondholder is a creditor. He can claim so much and no more. In return for being guaranteed a fixed return, he has placed a sum of money at the disposal of the corporation which is bound to return him his principal at the date named in the bond, and to pay him interest at a fixed rate in the meantime. The stockholder, on the other hand, is an owner. He is entitled to share, in proportion to his holdings, in any distribution of profits made by the directors. This rate of distribution, with ordinary good fortune, and if the business of the company is well managed, will increase. The rate of return on the investment in the stock, which may have been only 4 per cent at the time of its issue, may, as a result of increased dividends, increase to 6 per cent, or even a higher figure. In point of fact, as a result of the various manipulations of railway securities in sale and lease, and also by the distribution of assets by privileged issues of securities to stockholders at prices less than the market values, the stockholders who purchased during the last period of low prices have, in some cases, received a very large return on their investment.

The return on the stock of the Chicago, Burlington and Quincy Railroad Company offers an illustration. In January, 1897, Burlington could be purchased at $73\frac{5}{16}$. During the next four years it paid an average dividend of 5.6 per cent. In 1901, it was sold to the Great Northern and Northern Pacific Company for $200 per share, payment being made in 4-per-cent bonds which now sell at 96.* The total return on the purchase of a share of Burlington stock in 1897 has been as follows: Dividends, $22.40; increased price of stock, $118.69; total, $141.09, or 193 per

* October 24, 1902.

cent on the purchase price in January, 1897. During this period the company had no difficulty in borrowing money at 3½ per cent. Similar profits have been made by the stockholders of many other roads, and in some cases—Northern Pacific and Union Pacific being the most conspicuous—the percentage of profits has been even larger than the return to the Burlington stockholders.

In view of these facts, it is not difficult to understand why corporation directors, when they can do so with safety, issue bonds rather than stock to obtain money for improvements. As the representatives of the stockholders, they desire to secure for their principals any advantages which may accrue to the stock. By borrowing money at 3½ per cent on mortgage bonds, the stockholders retain for themselves any profit, above this low rate of interest, which may be realized by the corporation. If stock were to be issued, the new stockholders must be admitted to their pro rata share in these anticipated profits, which would leave less remaining to the original stockholders.

Suppose, for example, that a railway corporation with $50,000,000 of stock on which a 5-per-cent dividend is paid, and $50,000,000 of 3½-per-cent bonds, desires to raise $25,000,000 for improvements. The stock sells at 130 and the bonds at 103. To obtain the $25,000,000 required, $19,230,000 of stock or $24,271,000 of bonds can be sold. Suppose that the directors sell stock. The capital of the company is now $69,230,000 of stock and $50,000,000 of bonds. The dividends are $3,461,500 and the interest requirements $1,750,000. As a result of improving business and consolidation, the average profits of the corporation, above interest charges and betterments, during the next five years, are $13,846,000. Each stockholder will receive 20 per cent on his investment. Suppose, however, that instead of stock, 3½-per-cent bonds had been issued. The capital of the com-

pany would have then consisted of $50,000,000 of stock and $74,271,000 of bonds. The interest charges would have been $2,599,485. The same increase in profits over the old interest charges would have earned for the stockholders $13,846,000 per year. Out of this, they would pay $849,485 additional interest on the new bonds, leaving them $12,996,515 of net profits available for distribution, or 25.8 per cent on the $50,000,000 of stock, as compared with 20 per cent which they would have received if the stock had been increased.

This illustration presents the usual argument urged in support of bond issues. It applies, however, to those cases only where the old stockholders are not in position to take up the new stock, and where an outside investing interest must be appealed to. Probably, for the reason that the financial strength of the controlling interests of American railroads has been rapidly increasing during recent years, do we find a growing tendency to resort to the issue of stock in the creation of new capital. This method is certainly preferable when a majority of the existing stockholders can avail themselves of the privilege to increase their holdings.*

The issue of bonds is also to be preferred when the stock of a corporation proposing to increase its capital is selling below par, especially when the low price of the stock reflects the postponement of dividends for the benefit of the surplus reserve. In a former chapter, it was shown how the accumulation of a reserve by a corporation at the expense of dividends, while an aid to the stock in the long run, operates, during the period of postponed dividends, to depress the value of the stock below its real worth "for a long pull."

The profits of the Southern Pacific Railroad Com-

* See Final Report of the Industrial Commission, pp. 402, 403, for a full discussion of this subject.

pany, for example, during 1901 amounted to 10 per cent on the stock; and the earnings of the present year promise to be fully as large. No dividends, however, are being paid, all the earnings being invested in the property. It is expected that in a few years this stock will be placed on a dividend basis. In this event, it will probably sell for par or over. For the present, however, the absence of dividends makes it an expensive stock to hold, and this accounts for the price of 65–70 at which it has recently sold. A company in this position could probably sell its 4-per-cent first mortgage bonds at par, because the interest would be fully secured by its large earnings. In other words, in exchange for $1,000,000 of stock, only $700,000 could be obtained, while $1,000,000 of bonds would bring $1,000,000. There would be, therefore, a large advantage gained by such a company in the issue of bonds.

An argument similar to that just presented can be used to justify the issue of bonds by a new company whose future, in the opinion of the directors, is assured, but whose stock, because it has not yet had time to become firmly established in the confidence of investors, sells at a low price. If capital funds are to be raised, and in case the stockholders are unwilling to make further contributions, it may be good policy for the directors to issue bonds. Generally speaking, these conditions are the only ones under which bonds should be preferred to stock as a means of providing new capital funds: (1) When the stockholders desire to secure for themselves the major portion of an expected increase in profits, and when they are for some reason unable to purchase the new securities, and (2) when the stock is selling at a low value, which is not due to insufficient profits, but to the investment of these profits in surplus earning power.

There is, on the other hand, a potential danger in the issue of bonds that should make directors extremely cautious in resorting to this means of obtaining funds. It has been already shown, but it is impossible to repeat too often, that the essential difference between stock and mortgage bonds is a difference of security. Interest must be paid in foul weather as in fair. No excuses of bad business or increased expenditures will be accepted by the mortgage trustee. A default in interest forces the unfortunate corporation to seek sanctuary in a receivership, from which it will only be released and placed again on a "going" basis after the stockholders have paid assessments, and, in most cases also, after the bondholders have consented to make sacrifices in principal and interest. A receivership is, at least temporarily, the finish of a corporation which is held, as it were, in a state of suspended animation. Its securities at once fall to a speculative position, and the owners of those securities thereby suffer heavy losses. A policy of increasing capital which is fraught with even the possibility of such disaster, no matter how specious may be the arguments advanced in its defense, must be rejected if the decision rests with directors who have the permanent welfare of the company at heart.

The necessity of preserving solvency at any cost offers a starting-point from which we may determine the principles which should govern the issue of bonds. To begin with, as a rule of primary importance, the fixed charges of a corporation should never exceed its minimum net earnings. To the end that they may always remain below this danger line, fixed charges should in no case exceed 60 per cent, and preferably 50 per cent, of those net earnings, which, taking into account the past history, the present circumstances, and the future prospects of the corporation, may be conservatively estimated as the sum

below which the profits of the corporation are not likely to fall.* In other words, a corporation should always limit its fixed charges to 50 or 60 per cent of its net profits. For a new company having no record of earnings to which it may refer, such an estimate of minimum profits must be especially conservative. The directors of a steel manufacturing company, for example, when considering the issue of bonds should assume, in making a conservative estimate of its lowest limit of earnings, that the lowest prices, the most stagnant demand, and the fiercest competition of the past decade will be repeated. This assumption is probably ultra-conservative, but it is all the better for that. In issuing bonds, a company can not well be too conservative.

Having made their estimate of profits, the directors have then to consider what percentage of these profits can be safely absorbed by fixed charges. The basis of this determination is the same as that employed for the surplus reserve, viz., the stability of profits. The rule may be stated as follows: The proportion of fixed charges to minimum profits should vary inversely as the fluctuation of profits. The reason for this rule of fixed charges is also the same as that which explains the principle when applied to surplus, viz., the necessity of maintaining a stable dividend. Fixed charges which must come out of profits before dividends are declared, if fixed too high, may reduce the surplus earnings to a point too low for investment security. Even though the fixed charges are not in danger, the decrease in the annual surplus may bring the remaining earnings so near the amount of the dividend requirement that confidence in the stocks may be shaken, and their value may decline. It is important, therefore,

* For an excellent detailed discussion of this principle of bond issue, the reader is referred to Greene's Corporation Finance, chap. i.

that directors should have in mind the probable stability of the corporation's profits, and should lessen the percentage of proposed interest in proportion as those profits are more irregular.

It is to be remembered in connection with the above, that the security for bonds is not the selling value of property, but its earning power. A fallacy—unfortunately still prevalent—which has been responsible for many bankruptcies and heavy losses to security holders, is the opinion that a bond is more secure than a share of stock because specific pieces of property have been set apart to secure its payment. The language of a mortgage lends itself to that interpretation, by authorizing the trustee to sell the property for the benefit of the bondholders, and pay them their principal and accrued interest out of the proceeds. A share of stock, on the other hand, it is claimed, has no specific security. It is merely a claim on such profits as the directors may see fit to distribute. If profits disappear, the value of the stock vanishes with them.

The flaw in this reasoning should by this time be apparent. The value of a share of stock rests upon the same basis as a mortgage bond. Each is a claim upon earnings. Here, it is true, there is an apparent difference: the claim of the stockholders is conditioned on the will of the directors; that of the bondholder, on the other hand, is enforcible by foreclosure sale. But when the bondholder has exercised his rights, he finds that the security of which he has come into possession is not property as a physical fact, but property as representing earning power. If the capitalized value of the profits of the company is only half the face of the bonded debt, then the value of a $1,000 bond is $500. The security of the bondholder, then, is not the appraised value of the property at the time the bonds are issued, but the earning power of

the corporation at the time when the demand for its product is at the lowest point.*

The final consideration of safety in the issue of bonds concerns the provision for repayment. It is not the custom of corporations to pay the principal of their debts at maturity. The investor does not often desire the return of his money. What he wants is a continuance of interest payment. If the principal of his bond were to be paid him, the investor would be obliged to look about for some other equally satisfactory investment, and this it might be difficult to discover. At the expiration of the term named in the bond, the investor is usually willing to receive a new bond, and to renew his contract with the corporation for another, and usually a more extended period. This process of refunding, as it is called, is demanded by the interests of the corporation as well as by those of the investor. The reasons will appear from a consideration of the implications of bond payments.

In the first place, in order to repay a bonded debt without contracting another debt of equal amount, the corporation must lay aside out of its annual profits a certain annual sum for a sinking-fund which will at the maturity of the bonds be equal to their principal. This sinking-fund is of no benefit to the stockholder other than to ultimately decrease the liabilities of the company. During a long period, however, the corporation is under the necessity of paying interest, and at the same time of contributing to the sinking-fund. The result of this double contribution is, for perhaps twenty-five years, to compel the stockholder to pay double for the money borrowed.

* For a more extended treatment of the principle that the security of a bond is not property but earnings, the reader is referred to a pamphlet published for the writer by the American Academy of Political and Social Science, entitled The Reorganization of Railroads.

The amount available for dividends is, therefore, reduced, and the stockholder suffers.

It may be argued that the stockholder will eventually receive full compensation for these smaller dividends in the reduction of fixed charges which the sinking-fund will eventually bring about; but aside from the fact that it is a hardship for him to wait so long for this reward, there is the further objection that even after the reduction of liabilities by the cancellation of the bond principal, the owners of the company will have made, averaging the periods before and after the retirement of the bonds, smaller profits than if no sinking-fund had been gathered. The reason for this permanent reduction of profits by the collection of a sinking-fund is as follows: A sinking-fund must be invested in securities. It can not be put into betterments. In the form in which it is accumulated, a low rate of interest from the investment of these annual sums is all that can be expected. The compounding of these annual investments, it is supposed, equals the principal of the bonds at the time of maturity, and the corporation is thereafter freed from a portion of its fixed charges. This gain, however, is in reality a loss to the stockholders. If the money which has gone into the sinking-fund had been spent upon improving the property, the stockholders would eventually have received a larger dividend.

It may be assumed that the corporation can earn a higher return on money invested in improving its own property than the return on securities purchased for the sinking-fund. Under these circumstances, it is good policy to devote all surplus funds to increasing the earning power of the company, allowing the debt to run without special provision for repayment. In other words, by refunding bonds when they mature, and by refusing to make any deductions from profits to provide funds for

debt payment, a corporation not only pays a larger dividend, but increases the value of its productive assets more rapidly than the value of its sinking-fund would increase during an equal number of years. To put the matter in still another way, the accumulation of a sinking-fund by a corporation decreases the proportion of debt to value of property less rapidly than when the annual amount of the sinking-fund is invested in the equipment.

The methods of refunding are also to be preferred to the accumulation of a sinking-fund, because they offer opportunity for the reduction of interest rates which a sinking-fund does not. For the last thirty years, the investment rate of interest has been steadily falling. In the early seventies, 7-per-cent railway bonds were common. In the next decade, these were largely replaced by 5-per-cent bonds, and in recent years 3½-per-cent bonds have been generally issued by railway companies. At the same time that the interest rate was falling, the price of a $1,000 bond increased. In the seventies, railway companies often paid 10 per cent for money. At the present time, 3½ per cent is the ordinary rate. The advantage to a railway company of keeping its debt alive from one generation to another without attempting to reserve funds for its repayment, has been thus increased by the fall in the investment rate of interest. At the maturity of a 6-per-cent bond, the company can issue a 4-per-cent bond in its stead, saving a large sum in future interest payments. If any of the former bondholders are unwilling to accept the new bonds in exchange, a sufficient number of the new bonds are sold for cash to repay them their principal.

In view of these opportunities for periodical reductions in fixed charges by the operations of refunding, the unwisdom of a sinking-fund is doubly apparent. A railway corporation which began in 1876 to

accumulate out of its annual profits a fund sufficient to retire an issue of $20,000,000 of 7-per-cent bonds in 1900, would not be making ready to relieve its stockholders of a fixed charge of $1,400,000 per year. On the contrary, in view of the possibility of refunding the bonds at 3½ per cent in 1900, the decrease in fixed charges would only be $700,000. At the same time, moreover, the annual appropriations to the sinking-fund, because of the decline in the rate of interest at which these sums could be compounded, must be increased, if their total amount is to equal the principal of the bonds at maturity.

From the foregoing considerations, it is far better, we may conclude, that, in the absence of special circumstances which make a sinking-fund policy desirable, a corporation should regard the bondholder as a permanent claimant to a part of its profits, and should make no effort to extinguish its funded debt. By so doing, the stockholders will receive a larger rate of dividend, equally well secured by an adequate surplus reserve, than if they should, in an excess of caution, reduce their dividends in order to extinguish their debt. The existence of a debt is in itself no menace to the solvency of a company, and the large surplus over the annual requirements of interest which is essential to safety can be better secured if the annual income is not depleted by a sinking-fund.*

There are, however, special conditions under which a variation from the foregoing principle is necessary. Wherever the permanent value of the security of a bond issue is doubtful, especially in those cases where the operations of the company exhaust its productive assets, provision must be made out of earnings for retirement of the

* For an extended discussion of the questions of refunding, as compared with the maintenance of sinking-funds, see Commercial and Financial Chronicle, vol. xlviii, pp. 234, 235. See also ibid., vol. lxiv, p. 492, for statistical material illustrating the advantages of refunding.

debt at maturity. The land-grant bonds formerly issued by Western railroads furnish a case in point. These were secured by the public lands which had been granted to the companies as an aid to the construction of their lines. These lands were sold to settlers. The value of the security of the land-grant bonds was in this way diminished by the operations of the land departments of the railway companies. It was necessary, therefore, to provide a sinking-fund out of annual profits, in order to retire the bonds at maturity; for the source of income —i. e., the sale of the land which secured their principal—would be nearly exhausted when the bonds became due. Another illustration is furnished by coal bonds. Well-managed coal-mining companies deduct 10 or 15 cents from the price received for each ton of coal, and invest this for the benefit of the sinking-fund. In time, their coal is exhausted, but an amount equal to the principal of the bonds has been provided out of the proceeds of the coal sales. In other cases—and these will form the subject of the next chapter—when the business of a corporation is fluctuating and uncertain, and this holds good, generally speaking, of all manufacturing business, the investor will not buy its bonds without some provision for retiring these at or before maturity.

The principles which should govern the management of sinking-funds are well established. Generally speaking, a corporation can expend the appropriations for the sinking-fund in two ways: (1) It can devote a certain annual sum to the purchase of its own bonds; or (2) this annual appropriation can be used to purchase the stocks or bonds of other corporations. The effect upon the reduction of debt is apparently the same in either case. By the first method, for example, $1,000,000 is appropriated to the cancellation of perhaps $50,000 of interest. At the end of twenty years all the bonds have been purchased and

the interest charge is abolished. By the second method, $1,000,000 is invested every year in the 5-per-cent bonds of other corporations. The income received by the corporation from this $1,000,000 of outside investment equals the reduction of interest achieved by the purchase of its own securities. This income can either be turned into the treasury as a part of the gross receipts of the corporation, or it can be used to purchase more bonds for the sinking-fund.

Although these two methods of sinking-fund management are apparently the same, the second method—i. e., the purchase of securities other than the issue which is to be retired—is for some reasons to be preferred. A corporation can purchase its own bonds for a sinking-fund in one of two ways: (1) It can buy bonds in the open market; or (2) it can, by previous agreement, select at intervals, usually by lot, a certain number of bonds, and call these in at a fixed price, paying, for example, $1,050 for a $1,000 bond. In either case, the corporation is at a disadvantage. If the purchase of its own bonds is made in the open market, the price is forced up at the expense of the corporation, and to the profit of the investor. If the intention to purchase bonds in this manner is announced at the time of issue, the corporation can obtain a higher price than if no such understanding was had with the investor, but this premium does not offset the burden of a high price which must be carried during a term of years.

If, for example, a corporation making an issue of $20,000,000 of 5-per-cent twenty-year bonds, should bind itself to purchase each year $1,000,000 of these bonds at the market price, it might sell these bonds at 130 instead of 120, the normal price. The investor would pay a higher price for a bond whose demand was to be sustained by periodic purchases. On the other hand, however, over the period of twenty years, if the corporation was obliged

to pay an average excess over the normal price for such a security, it would have suffered a loss of $1,000,000 on its purchases, to offset which would be a premium of only $500,000 obtained for the bonds in the first place.

The second method by which a corporation can purchase its own bonds—i. e., the calling of bonds at a fixed price—is objectionable to the investor, who must be on the lookout for the announcement of the drawing of bonds for retirement, and who must frequently be put to the trouble of finding another investment for the money which the corporation may at any time return to him. Furthermore, if these calls are to be made at 105, while the normal price of the bond in the absence of a sinking-fund would be 120, the investor will not pay the normal price. The fact that his investment is liable to constant disturbance, lowers his estimate of the value of the bond. The outcome of these objections is a lower price for called bonds than for bonds which are certain to run their full term.

Probably the best method of managing a sinking-fund is a combination of the two just described. A corporation desiring to reduce its debt should purchase its own bonds in the open market if they can be secured below a certain price, and so strengthen its credit by reducing its liabilities; but if not, the trustees of the sinking-fund should be allowed to purchase other equally good securities which are relatively cheaper. The sinking-fund of the Burlington is managed in this manner.*

Another method of reducing debt, which has been much in favor in recent years, has been the issue of bonds convertible into stock at the option of the holder. Whenever the increasing earnings of the corporation raise the price of its stock above the market price of the bonds, these are exchanged for stock in order that the bond-

* Financial Review, 1899. Railway Stocks and Bonds, p. 32.

holder may make the difference. The higher the price of the stock moves, the larger is this conversion. In periods of increasing earnings, therefore, the exercise of this privilege of conversion acts as an automatic sinking-fund, reducing the amount of the bonds, and converting an interest into a dividend charge.*

We have now determined the general principles which govern the obtaining of funds by a corporation for the purpose of enlarging its equipment. First, and most important, a corporation should avoid the creation of a floating debt for any other purpose than to anticipate current receipts, and sometimes, to anticipate the proceeds of stock or bond sales. The best method of providing new funds is to take them out of profits. If this method is unavailable, and if new capital must be issued, considerations of safety approve the sale of stock rather than bonds, especially when the sale can be made to the original stockholders. In those cases, however, where stockholders are not prepared to purchase new stock, and especially where, for reasons unconnected with the earning power of the company, its stock is selling at a low price, the issue of mortgage bonds may be approved. The security of a bond is the minimum earnings of the company. In view of this fact, the interest requirements should never exceed a certain percentage of those minimum net earnings—a percentage which should decrease as the prospective earnings of the corporation issuing the bonds are more unstable. As a general rule, the maintenance of a sinking-fund to extinguish the principal of bonds at maturity is undesirable. The corporation will profit more if the amount of money required by a sinking-fund is spent in increasing its earning power. In those cases, however, where the security of the bonds

* The Colorado Fuel and Iron Company and the Union Pacific Railway Company, among others, have issued convertible bonds.

is being impaired by the operations of the company, or where the earning power of the company is in any way doubtful, a sinking-fund may be with advantage accumulated.

On the basis of these accepted principles of capital creation, let us now examine the methods employed by the industrial trusts to provide funds for new equipment.

CHAPTER XIV

THE FUNDING POLICY OF THE TRUSTS

Working capital, whose primary form is cash, is a necessity to any business. Wages must be paid, and materials and supplies purchased, before the proceeds of sales are received. For these purposes, a large amount of cash or quick assets must be constantly carried in hand. A manufacturing corporation is usually obliged to carry a larger working capital than a railway company. The receipts of a railroad are either cash or thirty-day bills. It has, therefore, to stand out of its money but for a short time. Moreover, railway purchases are so arranged as to coincide with receipts. Wages are paid monthly, and supplies are purchased for delivery as required. A railroad company does not have, as a rule, a large quantity of materials on hand at any one time.

A manufacturing concern, however, must frequently purchase a quantity of material sufficient to run its plant for several months. An iron and steel company must collect enough ore to tide over the season when the lakes are ice-bound and no traffic is moving. A woolen-mill in Philadelphia had recent occasion to take advantage of a depression in the price of carpet wool to provide itself with a five years' supply. All manufacturers who sell to the wholesaler must give longer credits than one month, and in some industries, by the use of post-dated bills, goods

are sold on nine months' time. During this long interval between the delivery of the goods and payment therefor, the expenses of the business must be met. It is also true of every industry that better terms can usually be obtained on cash purchases. Even in a staple industry, like iron and steel production, great advantages can be secured by the use of working capital in the form of ready money.

For these and other reasons of equal weight, a manufacturing business must carry a large part of its assets in a form from which they can be quickly converted into cash. The requirement of working capital is highly elastic, rising and falling with the prices of commodities and the wages of labor. It is impossible, therefore, to lay down any rule for governing the size of the working capital required by a particular industry, other than the general principle that the amount of working capital should vary with the instability of prices, the length of the productive process, and the term of credit extended to the buyer. In other words, working capital should increase with the amount of the advances required to carry on the business.

Most of the industrial trusts were organized in industries where the requirements for working capital are not inordinately large. The majority of these corporations produce the materials of other industries. It is unnecessary to give extended credits in these industries, and the requirements for working capital are, on that account, reduced below what the terms of extended credit demand.

Even in the iron and steel industry, however, the amount of cash capital required was considerable. In the first reorganization of the American Steel and Wire Company, for example, $13,000,000 of cash were provided by the underwriters, bringing the cash assets of the company up to $17,342,500.* The president and treasurer of the

* Iron Age, January 12, 1899, p. 19.

National Tube Company, on declaring the third quarterly dividend on the preferred stock, stated that the cash resources of the company at that time amounted to over $18,000,000, including more than $5,000,000 of actual cash.* It was a cardinal principle with the trust promoter to provide his new company with a large supply of quick assets; the more so, because, as has been shown, the working capital of the constituent companies was usually distributed among the owners when the plants were transferred to the trust.

The methods by which working capital should be provided have been already indicated in the discussion of capital requirements. It was there shown that considerations of safety forbade the borrowing of this capital from the bank, and that the conservative policy was to reserve the amounts needed out of earnings. We have now to inquire into the financial policy of the trusts in this particular. How have they obtained their working capital? The materials of this study are presented in the table on the opposite page, which shows the balance of current assets and current liabilities for seventeen of the more important industrials formed since 1898; showing, in other words, the amount of money either borrowed for a short time, or owing to immediate creditors for other reasons, and the amount of assets which could be converted into cash to meet those liabilities. An examination of this table proves that so far as their published returns indicate anything of their financial condition, the majority of the recently formed industrials have not exceeded the limits of safety in their current borrowing. The total excess of current assets over current liabilities for the last year examined was $256,019,684, or 256 per cent, and with most of the companies this balance shows a tendency to increase.

The inference of this table is that when working capital

* Commercial and Financial Chronicle, vol. lxx, p. 384.

Table of Current Assets and Liabilities

Name of Company.	1898.		1899.		1900.		1901.	
	Assets.	Liabilities.	Assets.	Liabilities.	Assets.	Liabilities.	Assets.	Liabilities.
American Bicycle*	.....	.....	.....	.....	$11,320,877	$3,280,620	$8,263,360	$2,245,844
American Car and Foundry	.....	.....	.....	.....	†15,933,120	7,266,637	15,937,532	7,563,302
American Hide and Leather	.....	.....	.....	.....	9,329,462	2,238,819	7,437,300	668,047
American Linseed Oil	.....	.....	.....	.....	10,599,639	5,220,674	6,143,334	3,917,362
American Locomotive	.....	.....	.....	.....	.....	.....	10,471,309	‡5,472,393
American Malting	$5,797,510	$6,861,041	#$8,011,550	$3,427,758	4,594,160	89,396	4,923,817	97,900
American Smelting and Refining	.....	.....	.....	.....	14,802,897	4,764,489	23,974,558	4,259,444
American Woolen	.....	.....	.....	.....	23,246,869	10,470,849	21,164,652	9,562,495
Distilling Company of America	.....	.....	.....	.....	12,881,029	5,920,334	15,966,210	6,677,412
General Chemical	.....	.....	2,243,405	349,058	2,476,041	683,628	2,935,621	473,527
International Paper	7,823,668	‖2,062,567	6,677,004	1,103,189	8,039,789	2,304,174	7,635,446	1,624,441
International Silver*	.....	.....	5,712,485	1,266,145	4,669,486	1,251,698	5,017,679	1,014,218
National Biscuit	7,837,425	444,839	8,056,255	490,640	8,274,897	509,991	8,531,713	507,608
Pressed Steel Car	.....	.....	.....	.....	7,052,755	5,064,830	8,013,597	2,333,395
Republic Iron and Steel	.....	.....	.....	.....	8,343,832	1,649,267	6,983,166	2,273,108
U. S. Cast Iron, Pipe and Foundry	.....	.....	△3,388,484	870,959	3,584,573	1,191,506	3,238,075	668,002
United States Steel	.....	.....	.....	.....	.....	.....	◊199,010,443	50,269,630
	$21,458,603	$9,368,447	$34,089,183	$10,341,937	$145,149,426	$51,906,912	$355,647,812	$99,628,128

Note.—The items in the different reports vary considerably, no uniformity of arrangement being followed. The figures in the above table are, in some cases, approximations, doubtful items being excluded. The dates of the ending of the fiscal year vary widely. * In the hands of a receiver. † For fourteen months. ‡ Includes dividends payable.

Includes $3,600,000 of bond subscription.

‖ Includes for each year taxes, accrued interest, and water rents not due, because given in a lump sum.

△ Reports for September, 1899, May, 1900, and June, 1902.

◊ Report of November 1, 1901 (nine months). The liabilities include dividends on common stock payable December 20.

has been required, it has been taken out of profits, and that the interests in control of most of the consolidations have refused to endanger the solvency of their companies by borrowing money to pay dividends. They have been willing, as a previous chapter has shown, to neglect making permanent provision for the welfare of these corporations by reserving profits for the benefit of the surplus reserve; but they have refused, in most cases, to run the risk of bankruptcy in order to pay dividends. Conspicuous examples of this conservatism are American Woolen, American Locomotive, and International Paper. Probably to this cause quite as much as to the desire to strengthen the position of the preferred stock, is due the fact, already discussed, that so many of the consolidations have failed to pay a dividend on their common stock. Considerations of immediate advantage inclined to the payment of common dividends, and some companies, as will be presently shown, did not resist the temptation; but against most of the trusts, whatever can be said of other features of their management, the charge of reckless borrowing will not hold.

In some instances, however, the principles of sound finance were disregarded. In our discussion of the circumstances which preceded the formation of the United States Steel Corporation, it was shown how the steel trusts were compelled by the pressure of reduced demand to invest their working capital in permanent improvements. The American Malting Company went to extremes in this direction, and spent the greater part of its working capital in buying up competing plants, with the result that it was nearly forced into bankruptcy by the maturing of $3,000,000 of call loans incurred because of the withdrawal of the cash assets.*

* Commercial and Financial Chronicle, vol. lxix, pp. 956, 1013. United States Investor, March 10, 1900.

In other cases, a rise of price has caused the increase in cash requirements. The Pressed Steel Car Company and the Colorado Fuel and Iron Company furnish examples of corporations which increased output, due to new construction, have forced to raise large additional sums to handle their new business. The first mentioned corporation spent a great part of its cash capital in building a new plant at McKee's Rocks, Pa. To handle the output of this plant, in addition to the necessity of replacing the cash thus withdrawn, a large amount of new money was immediately required.* The American Linseed Oil Company is obliged to pay cash for flaxseed which is bought several months before its sale as oil. In the report for 1901,† the effect of an increase in the price of this material upon the working capital of the company is described as follows: "Last year we had about $10,000,000 of working capital. The price of flaxseed has since advanced to $1.80 as compared with $1 last year. A great deal of additional working capital is therefore needed, the estimate being fully $5,000,000." During the first seven months of the existence of this company, moreover, as illustrating the vicissitudes of manufacturing business, the various losses incurred, including among other items $858,470 in inventory, and $686,971 on oil contracts and seed, were $1,700,000. ‡ Some of these expenditures of working capital are unavoidable, others are the result of bad management; but be their cause what it may, their effect is always the same. The company must raise money at once, or its profits will suffer. This money has been frequently provided by the increase of current liabilities.

This method, as has been shown, is dangerous under the given circumstances. The funds which the trusts desired to borrow were to be invested in the business.

* Commercial and Financial Chronicle, vol. lxxii, p. 343.
† Ibid., vol. lxxi, p. 1121. ‡ Ibid., vol. lxxiii, p. 955.

They were not to be devoted to the execution of particular contracts whose proceeds, already in sight, were specifically devoted to the repayment of the loans. On the contrary, they were to be thrown into the hopper with the rest of the grist, and were to take the general chance of turning out good or bad. In other words, a bank loan incurred to provide working capital for a car manufacturing company, does not furnish its own security and means of payment as does a discount of a car of flour or lard, and, therefore, such loans when made must be backed up by special collateral or general assets. These loans, even if a profit on the employment of the proceeds is assured, must be paid or renewed within a short time, usually before any return on the money can be expected. In a stringent money market, renewal may be impossible, and the means of payment may be only secured at a heavy sacrifice, and often at the risk of solvency. The issue of bonds, on the other hand, postpones to a distant date the day of settlement. Instead of the constant menace of combined principal and interest, a bond issue offers the relatively easy burden of interest only, which may be met, after the first few payments, out of the returns from the investment.

In spite of the danger of this practise, however, a number of consolidations have piled up large floating debts. The more important of these examples are the following: American Malting, American Linseed Oil, American Ice, American Type-Founders, Consolidated Lake Superior, Distilling Company of America, International Steam Pump, International Silver, Pressed Steel Car, and United States Rubber. The amount of floating debt incurred by five of these companies appears on the table already presented. The excess of current assets over current liabilities of four of these five companies, at the date of their last reports, excluding American Malting, whose crisis came in 1899, was 152 per cent as compared with a total excess

for the seventeen companies examined of 256 per cent, and for the remaining thirteen companies of 274 per cent.

To make matters worse, all of these companies with large floating debts, with the exception of Distilling Company of America and American Malting, have paid dividends on their preferred stocks within three years, while some of them have paid something on the common stock. The total amount of the dividends of eight of these companies during the three years 1899–1901 was $18,329,-777 *—50.7 per cent of the amount of bonds which they have since authorized to retire their floating debt. In other words, a number of the consolidations have borrowed money to pay dividends, and have distributed profits which have not been earned. To this list should be added United States Steel, which, while preserving a safe balance of current assets over current liabilities, has borrowed money and now proposes to borrow more money for work of construction, while at the same time paying large dividends on both classes of its stock.

The explanation of these apparent blunders has been already suggested in connection with the discussion of the surplus reserve. The controlling interests of these companies had stock to sell. They could not sell this stock without a show of dividend payment. To this end, their large profits were directed, and when working capital was demanded, it must be borrowed. But for the same reason that led the directors to hand out profits to the stockholders, they were unwilling to sell bonds, because an early issue of bonds would have been understood by the speculative public as indicating an impairment of the value of the stock. Mention has already been made of the fact that, as a rule, no bonds were included in the original proposition of the promoter. The stockholders were to receive all the profits without deduction for fixed charges. To the

* Estimated.

uninformed mind of the speculative buyer, an issue of bonds is a perpetual threat of bankruptcy. Unable to grasp the benefits from the employment of the proceeds of bond sales, he is slow to admit their necessity. Indeed, so general was this fear known to be, that in the charters of many trusts—National Tube being an example—it was provided that the directors should have no power to mortgage the property of the company without the consent of a majority of one or both classes of stockholders.

In view of this hostile attitude of the speculative public toward bond issues, as long as the liquidation of the inside stock holdings was going forward, or while, for any reason, the value of the stocks depended upon the demand of the speculators, if money had to be borrowed—and this, as we see, was often a necessity—it must be borrowed from the banks. Floating debt can be concealed until the date of the annual report, the publication of which can be delayed several months after the expiration of the fiscal year. Even where a balance-sheet is published, and the amount of floating debt set out with suitable precision, it has an innocent appearance and is evidently intended as an expedient to bridge over a temporary difficulty which increased earnings will rapidly extinguish. Indeed, there is no reason to doubt the assertions of officers and directors that, in creating a floating debt to provide working capital, they had no intention of burdening the corporation with a permanent fixed charge. In some cases it was expressly stated that the floating debt would be paid out of earnings without detriment to the stockholders' interests.

There have been, however, instances where floating debt was incurred in secret without mention of it in the annual reports of the companies, and where the anxiety to conceal its existence for interested reasons was, as the result showed, a controlling motive. The existence of such

cases argues that the floating debts of other trusts may be larger than reported.

The policy of the United States Rubber Company is the most conspicuous illustration of this practise of secret borrowing. This company, like several of the recently formed trusts—the United States Steel Corporation being an example—was organized as a holding company; that is to say, it owned no plants, save through its ownership of the stocks of the companies which it controlled. The income of such a company consists of dividends on its stock holdings declared by the directors of the constituent companies, and does not come directly from the sale of commodities. On its face, this form of organization is innocent enough.

It is, however, true that the holding company offers large opportunity for manipulating the finances to the eventual detriment of its stockholders. The annual report of the parent company, for example, may show a small floating debt, while each one of the constituent companies may be heavily indebted to the banks, and liable to be called on at any time for payment. If such a debt could not be paid when payment was demanded, a portion of the property whose majority ownership was, by its stock holdings, vested in the parent company, could be seized by the creditor and the value of the assets of the holding company, to that extent, diminished.

To return to our illustration. The 1901 report of the United States Rubber Company showed only $1,648,694 of loans and accounts payable, an amount which was largely exceeded by quick assets. A short time after this report was issued, however, announcement was made of an issue of $12,000,000 of bonds to take up the floating debts of the constituent companies.* During a period of seeming prosperity, while regular dividends were being

* Commercial and Financial Chronicle, vol. lxxiv, p. 684.

paid, the company was secretly accumulating this large debt. It is true that these temporary loans are generally made on the indorsement of officers and directors, and are, therefore, safer than loans made on the corporation's own credit, since the indorsers would probably protect the company under ordinary conditions. In a time of panic, however, they could do nothing. As before remarked, there is no direct evidence to show that many of the trusts are concealing their indebtedness after the manner of the United States Rubber Company; but with the exception of the Distilling Company of America, which shows in its annual report the finances of each of its constituent companies, their accounts are kept in such a manner as to leave the investor in the dark as to the kind and extent of their loans. Other companies are therefore liable to fall under the suspicion of "cooking" their accounts.

These floating debts, however concealed, and for whatever purposes incurred, must be got out of the way as soon as possible. Their presence is a constant menace to solvency. Profits are required for the payment of dividends. Temporary obligations can not, therefore, be paid. They must be exchanged for long-time bonds whose principal can not be demanded before the date of maturity. In other words, the floating debt must be funded. A claim for principal, with interest, which is likely to be presented at any time, must be converted into a current claim for interest only. Moreover, requirements for new construction are now presented. The business is not allowed to grow out of its profits, and it must, therefore, for the various reasons stated in the preceding chapter, obtain funds by the issue of new capital. The need of new capital for both the purposes mentioned is effectively presented in the following extract from the circular issued to its stockholders by the United States Steel Corporation on April 17, 1902:

"The main object still to be accomplished is to harmonize further the several properties through such rearrangement and extension and, in some cases, such modernization, as will produce a completely rounded system of coordinated plants, adapted to the entire process of mining and transportation, and of transforming raw materials into the highly finished products of the several companies at the lowest cost.

"Economies in manufacture still greater than those which already have been accomplished may be effected if plans of improvement now proposed be carried out. It is estimated by the executive committee that the expenditure of about $25,000,000 for such improvements will effect a saving in manufacture of, say, $10,000,000 annually, and also under normal conditions would substantially increase the output, thus adding from $10,000,000 to $15,000,000 to the yearly profits. That these expenditures could be met gradually from surplus earnings, the management does not doubt; but this would necessitate extending them over a period of years, and correspondingly would postpone the realization of the profits which, by the immediate use of the money, could be obtained promptly.

"In February, 1901, various subsidiary companies had under contemplation, and in many cases actually had begun, the construction of additions to their plants which, in some cases, would have duplicated the facilities of other subsidiary companies. The aggregate of these contemplated expenditures was something like $50,000,000. As stated in the preliminary report of February 17, 1902, much that at the time of organization it was hoped might be accomplished in the way of avoiding wasteful expenditures for unnecessary enlargement of plants, has been accomplished by cooperation among the several companies, enabling one to utilize the facilities of the other.

However, owing largely to advance commitments, it was impossible to stop all construction at the time your Corporation was organized; and in order to finish work then already under way, cash payments have been made during the year to the amount of $15,000,000. . . .

". . . Within the next few months will fall due payments aggregating about $10,000,000 for properties purchased almost immediately after your Corporation was organized. . . . The finance committee . . . believes that $25,000,000 should be made available for improvements. The finance committee also recommends capitalizing both the $15,000,000 expended during the year for commitments made prior to your Corporation's organization, and the $10,000,000 yet to be paid for properties as above stated. These three purposes in the aggregate call for $50,000,000."

In this extended quotation are clearly set forth the reasons justifying a corporation in increasing its capital. Here is work of construction already under way, and partly paid for by floating debt. Here are maturing obligations for plants purchased outright. And here are new improvements which are contemplated. This $50,000,000 could be raised out of earnings, but that would be too long a process and might endanger dividends. The new equipment will add to the earnings of the company, and can properly be paid for by the sale of new capital certificates. A similar situation has confronted several of the trusts. They have had floating debts to fund, and they have had the cost of proposed improvements to meet. The need of new capital from their standpoint is plain. The only question concerns the form of the certificates. Shall the corporation sell its bonds, or shall it issue new stock?

The issue of stock by the trusts was in most cases undesirable. The new stock must be sold at a low price. A

sale of a 7-per-cent cumulative preferred stock at 80 is obtaining money, so far as the common stockholder is concerned, at 8.7 per cent, while, by the issues of bonds, 6 per cent at most will be charged. It would have been extremely difficult for the average trust to secure the underwriting for a large supplementary stock issue, more especially because at the time when conversion schemes were brought forward the speculative demand had been exhausted and would take no more shares. The appeal must be made to the investor, who, we have seen, would not buy stocks of the trusts, but who was willing to advance them money upon a mortgage.

In some cases, the sale of new stock at less than par is forbidden by the charter. As the finance committee of the Steel Corporation remarks in the circular just referred to: "The problem confronting the finance committee has been to make provision for this $50,000,000 without issuing preferred stock, which stock can not be sold at less than par, and which if sold at par would be entitled to dividends at the rate of 7 per cent, and would increase by $3,500,000 the present dividend requirements." In other words, a corporation, when selling its capital, should, so far as consistent with safety, offer the kind of certificate for which the investor will pay the highest price; that is to say, in the present instance, it should offer a bond.

There is one other method by which stock can be employed for the acquisition of desirable assets, and that is by exchanging it for the stock of a company which possesses the desired property. For example, the Rubber Goods Manufacturing Company issued its own stock for the stock of the Dunlop Tire Company, and thus obtained, without the expenditure of cash, the property which it desired.* The Shelby Steel Tube Company was

* Commercial and Financial Chronicle, vol. lxix, p. 231.

*Bond Issues**

NAME OF COMPANY.	Rate.	Original issue.	Later issue.	Purpose of later issue.	Kind of bond issued.
American Bicycle †	5	$9,500,000	.....	.....	Due 1919. Debentures. Sinking fund buys $250,000 yearly.
American Hide and Leather	6	8,375,000	.....	.....	Due 1919. First mortgage. Sinking fund, $172,500. Subject to call if sold at 115.
American Malting	6	.....	$3,893,000	To retire floating debt and for working capital.	Due 1914. First mortgage. Sinking fund equal to one-half preferred stock dividend. Subject to call at 105.
American Sewer Pipe	6	1,648,500	.....	.....	Due 1920. First mortgage. Sinking fund. Subject to call at 105.
American Thread	4	6,000,000	.....	.....	Due 1919. First collateral trust mortgage.
American Tobacco	4	.....	5,000,000	To acquire properties.	Due 1911. Gold notes of American Cigar Company, redeemable at 102½. Guaranteed by American and Continental Tobacco Companies.
American Writing Paper	5	17,000,000	.....	.....	Due 1919. First mortgage. Sinking fund. Subject to call at 105 after July, 1909.
Central Foundry	6	4,000,000	.....	.....	Due 1919. Debentures. Subject to call after 1901 at 105.
Consolidated Tobacco	4	132,049,000	.....	.....	Due 1951. Collateral trust mortgage. Secured by stock of American and Continental Tobacco Companies.
Continental Tobacco	7	.....	1,581,100	Acquisition of stock	Due 1905. Debentures.
Distilling Company of America	5	.....	3,580,000	Working capital	Due 1911. Collateral trust mortgage. $500,000 redeemable yearly. Subject to call at par. Secured by $5,000,000 first-mortgage bonds of Kentucky Distilleries and Warehouse Company.
Amer. Spirits Manufacturing	6	1,873,000	.....	.....	Due 1915. First mortgage. Sinking fund 5 per cent. Subject to call at 105.
International Paper	6	9,303,000 2,240,000	.....	.....	Due 1918. First consolidated mortgage. Redeemable after 1907 at 105.
	4 & 6	.....	931,500	Acquisition of property	Due 1913 and 1918. First mortgage. Sinking fund.
International Silver †	6	3,900,000	.....	.....	Due 1948. First mortgage. Sinking fund. Subject to call at 110, beginning 1901.
National Asphalt †	5	5,963,000	.....	.....	Due 1951. Collateral trust certificates.
	5	30,000,000	.....	.....	Due 1949. " " "

Nat. Enameling and Stamping	5	.....	2,250,000	To retire floating debt, and bonds incurred during consolidation.	Due 1911. First mortgage. $\frac{1}{10}$ yearly.
National Glass	6	1,600,000	.....	.....	Due 1902–'09. First mortgage. $200,000 payable yearly.
	6	.....	2,500,000	To replace first mortgage retired November 1, 1901, and for improvements.	Due 1921. General mortgage. Sinking fund, 5 per cent of earnings. Drawn at 105 at thirty days' notice.
National Starch	5	(1) 3,724,000	.....	.....	Due 1925. Debentures. Sinking fund. Call at 105.
U. S. Sugar Refining Co.	6	(2) 1,000,000	.....	.....	Due 1921. First mortgage.
National Starch Mfg. Co.	6	(3) 3,002,000	.....	.....	Due 1920. First mortgage. Sinking fund.
New England Gas and Coke†	5	16,370,000	.....	.....	Due 1937. First mortgage. Redeemable at 105 after December, 1902.
Pressed Steel Car	5	.....	5,000,000	Working capital, McKee's Rocks plant.	Due 1911. First mortgage. Redeemable $500,000 yearly. Subject to call at par.
Sloss-Sheffield Steel and Iron	4½	2,000,000	.....	.....	Due 1918. General mortgage. Subject to call at par.
	6	2,000,000	.....	.....	Due 1920. First mortgage. Sloss Iron and Steel Company guaranteed by Sloss-Sheffield Iron and Steel Company.
Standard Milling	5	3,489,000	.....	.....	Due 1930. First mortgage.
	6	2,261,000	.....	.....	Due 1911 and 1922. First mortgage.
United Fruit	5	.....	3,000,000	Capitalizing floating debt.	Due 1911. Debentures. Convertible into stock at option of holder after January, 1903. Subject to call after January, 1903, at 110.
No. R. R'wy of Costa Rica	5	.....	1,600,000	.....	Due 1915. First mortgage. Sinking fund. Redeemable at 105. Guaranteed by United Fruit Company.
United States Leather	6	5,280,000	.....	.....	Due 1913. Debentures. Sinking fund at 4 per cent. Subject to call at 110.
United States Steel	5	301,000,000	.....	.....	Due 1951. Collateral trust. In exchange for Carnegie Company stock and bonds. Partly redeemable and partly not. Sinking fund. Subject to call at 115.
	5–6	‡41,504,656	.....	.....	Due 1910–1941. First and second mortgages, and collateral trusts. Redeemable and convertible.
		$615,082,156	$29,335,600		

* Financial Review of 1902.

† Now in the hands of a receiver.

‡ Bonds of constituent companies.

acquired by the United States Steel Corporation in the same manner.* Expansion by consolidation, after the model of the United States Steel Corporation, has been general among the industrials. This method of acquiring assets, however, can only be employed in those cases where the desired equipment is already in existence, and in possession of a company whose stockholders are willing to exchange their property for stock in the purchasing corporation. Where new construction is contemplated, or where loans incurred for working capital are to be taken care of, securities must be sold for cash.

In the preceding chapter, the principles which regulate the issue of bonds were discussed. It was there shown that bonds could be safely issued up to a certain percentage of demonstrated earning power, the percentage decreasing with the instability of the business of the corporation making the loan. Furthermore, it was shown that mortgage bonds are preferable to debentures because of the higher price which they command, that long-term are preferable to short-term bonds, and finally that a sinking-fund is only desirable in those cases where the security of the bonds is likely to become impaired before the date of their maturity. We have now to apply these principles to the bond issues of the trusts. The main facts of industrial bond issues are presented in the accompanying table, which gives the following information concerning the issues of trust bonds during recent years: (1) The amount of issue, (2) the purpose of issue, (3) the date of maturity, (4) a description of the bonds, and (5) the special provisions for security.

Several conclusions may be drawn from this table. We note at the outset how small was the amount of debt which the trusts carried over from the original constituent companies. For the 24 companies examined, it amounts

* Commercial and Financial Chronicle, vol. lxxiii, p. 349.

to only $51,619,656. It will be observed, however, that the United States Steel bonds, issued in payment for the securities of the Carnegie Company, and the bonds of the Consolidated Tobacco Company, issued in payment for the stocks of various tobacco manufacturing companies, are not included in this estimate, but only the underlying bonds of the original constituent companies. In the second place, it is to be noted that, up to the beginning of the present year, the amount of new bonds issued by all the companies was only $29,335,600, and that the purpose of the new bonds was to provide funds about equally divided between working capital and the acquisition of properties. We note further that, basing our opinion on the results of the past four years, the issue of trust bonds has not been excessive. So far, we have seen no reason to doubt the expediency of these bond issues. They are, in most cases, apparently well within the limit of safety. It is, however, when we consider the general provision of sinking-funds, the early dates of maturity, and the low prices which have been realized, as compared with issues of railway bonds, that we see the nature of the problem which is presented by the issue of industrial bonds.

The majority of the bonds enumerated in the accompanying table mature at an early date, 26 out of 33 during or before 1925, and 12 by 1915. There are only six examples of long-term bonds in the list, although these include the two largest issues—United States Steel and Consolidated Tobacco. The general practise favors short-term bonds for manufacturing companies.

These bonds are, with few exceptions, protected by some form of sinking-fund, 23 out of the list containing a sinking-fund or redemption clause. Given good security, as shown in a former chapter, a long-term bond, without a sinking-fund, is preferable from the standpoint of the investor and the corporation. If there were not good

reasons, therefore, to distrust the security which manufacturing property offers, we should not find so large a use of short-term sinking-fund bonds, which in some cases—Pressed Steel Car, for example—are so drawn as to be unsuitable for permanent holding.

In the same connection, mention should be made of the use of debenture bonds, six out of the number being of this character. Although the security of the principal of a debenture bond is the same as that of a mortgage bond, viz., the earning power of the property, yet the interest on debenture bonds need not be paid unless earned. Some corporations, whose directors are unwilling to risk insolvency by subjecting their properties to a mortgage, when they wish to borrow money, resort to this form of bond.

The final argument in favor of the conclusion that manufacturing bonds are unsuitable for permanent investments, which can be drawn from the issues of bonds made by the trusts, is furnished by the prices obtained for these bonds, in comparison with the prices of railway bonds. Comparative prices are given in the following table:

Railroad and Industrial Bonds

Name of Railroad.	Kind of bond.	Principal when due.	Price 1902.	Yield.
				Per ct.
Atchison, Topeka and Santa Fé	Gen. 4s.	1995	102⅞	3.8
Baltimore and Ohio	Prior lien deb. 3½s.	1925	95⅛	3.6
Chicago and Northwestern	30 yrs. deb. 5s.	1921	116¼	4.3
Erie	First ext. 4s.	1947	115¼	3.4
Hocking Valley	First consol. 4½s.	1999	109 9/16	4.1
Lehigh Valley	First guar. 4½s.	1940	110¼	4.0
Norfolk and Western	General 6s.	1931	134¼	4.4
Northern Pacific	Prior lien 4s.	1997	104 7/16	3.8
Southern Pacific	Col. trust 4s.	1919	92⅜	4.3
Southern Railway	First consol. 5s.	1994	121	4.1
Union Pacific	50 years 4s.	1947	104⅞	3.8
Wheeling and Lake Erie	First 5s.	1926	114¼	4.3
Average				4

Railroad and Industrial Bonds (Continued)

Name of Industrial.	Kind of bond.	Principal when due.	Price 1902.	Yield.
				Per ct.
American Cotton Oil	Ext. 4½s.	1915	100	4.5
American Hide and Leather	First 6s.	1919	97	6.1
American Spirits Mfg.	First 6s.	1915	85⅝	6.9
American Thread	First col. 4s.	1919	82½	4.8
Colorado Fuel and Iron	Gen. 5s.	1943	104½	4.7
Consolidated Tobacco	50 yrs. 4s.	1951	64 15/16	6.1
Distilling Company of America	Col. tr. 5s.	1911	92	5.4
International Paper	First consol. 6s.	1918	109½	5.4
National Starch Mfg.	First 6s.	1920	102⅝	5.8
National Starch	Deb. 5s.	1925	84	5.9
United States Leather	Deb. 6s.	1913	113½	5.2
Average				5.5

The railway bonds, even the collateral trust bonds of the Southern Pacific, whose only security is the earning power of stocks which five years ago were almost worthless, sell at higher prices than the mortgage bonds of the industrial trusts. The average yield of twelve railway bonds in 1902 was 4 per cent, and of eleven industrial bonds 5½ per cent. It should be noted, moreover, that all of these railway companies have been in default within the last seven years. The fact of their low prices confirms the conclusions drawn from the peculiarities of industrial bonds, which have been already described, and warrants the opinion that there must be weighty reasons which influence the bond buyer to distrust these securities. These reasons we shall now examine.

CHAPTER XV

THE BONDS OF MANUFACTURING COMPANIES AS INVESTMENTS

The explanation of the inferior investment value possessed by the bonds of manufacturing companies lies in their inferior security. The bond buyer, as was pointed out in a preceding chapter, surrenders all chance of participating in the increasing earnings of a company, in exchange for a guarantee of a fixed rate of return on his investment. If this guarantee is in any way doubtful, the insecurity of the investment is discounted in the price of the bond. Manufacturing companies, as a rule, can not give a guarantee of absolute security, and their bonds, on this account, can only be sold providing concessions in price and provisions for security additional to those given by a mortgage are made. The causes of the inferior security of manufacturing bonds may be understood from a comparison of manufacturing industry with the business of railway transportation. The bonds of manufacturing companies are inferior to railway bonds for the following reasons:

1. The demand for any manufactured product is less stable than the demand for railway transportation in the same territory.

2. Manufacturing companies are more exposed to competition.

3. The location of manufacturing industry is subject to more frequent changes.

4. The personal equation enters more largely into the management of a manufacturing company than into railway management.

5. Manufacturing industry is more complex, less visible, and therefore less easily understood by the investor than the business of railway transportation.

In the chapter which opened the discussion of the surplus reserve, a general classification of industries, on the basis of the stability of the demand for their products, was suggested. It was there stated that, under similar conditions of economic environment, the business of transportation was perhaps more stable than any other branch of industry. The evidence which supports this conclusion lies on the surface. The demand for the products of a single industry is limited to a small portion of the total number of commodities produced. The demand for transportation, on the other hand, is represented by every commodity of commerce. In other words, the demand for transportation corresponds to the supply of commodities. It is an acknowledged principle of trade, that the broader the demand for the products or services of an industry, the more stable are its earnings. This principle is based upon the observation that a large and diversified demand is but slightly affected by any single influence; while if this influence is left to operate by itself upon the price of a commodity or service, it produces wide fluctuations. The withdrawal of ten thousand gallons from a stand-pipe appreciably affects the level of water in the pipe. Withdraw the same amount from the reservoir, and the water level is scarcely affected.

This analogy may be applied to explain the stability of the demand for railway transportation as compared with the demand for coal, sugar, or iron. The railroad company is patronized by the producers of every commodity. What it loses in freight earnings from a decline

in price or supply of one group of products, it often more than regains by advances in others. The manufacturing company, on the other hand, by producing, at the most, only a small number of products, has usually less compensation for a decrease in demand. Its earnings must, therefore, show a larger effect from the fall in price.

Products of Agriculture
Grain.
Flour.
Other mill products.
Hay.
Tobacco.
Fruits and vegetables.
Other articles.

Products of Mines
Anthracite coal.
Bituminous coal.
Coke.
Ores.
Stone, sand, and like articles.
Other articles.

Products of Forest
Lumber.
Other articles.

Products of Animals
Live stock.
Dressed meats.
Other packing-house products.
Poultry, game, and fish.
Wool.
Hides and leather.
Other articles.

Manufactures
Petroleum and other oils.
Sugar.
Naval stores.
Iron—pig and bloom.
Iron and steel rails.
Castings and machinery.
Bar and sheet metal.
Cement, brick, and lime.
Agricultural implements.
Wagons, carriages, tools, etc.
Tools, etc.
Wines, liquors, and beers.
Household goods and furniture.
Other articles.

The distinction between transportation and manufacturing industry here suggested, may be further illustrated from the classified freight traffic of the Pennsylvania Railroad Company in 1900, which is presented in the above tables under the different groups into which it naturally falls.*

It includes thirty-six general classes of freight, some of

* Report of the Pennsylvania Railroad Company for the year 1900.

which comprise hundreds of individual articles, and all of which, taken together, constitute the 108,847,515 tons of freight hauled by the Pennsylvania in 1900. Each one of these commodities is acted upon by a variety of influences which affect its demand or supply, and, through these factors, increase or diminish the profits of its producer. The production of anthracite coal is reduced by a strike. As a result, the demand for bituminous coal is increased. A failure of the corn crop reduces the profits of the farmer and grazier. A reduction of the tariff lessens the profits of the sugar refiner, and a reduction of the internal revenue duty on beer increases the profits of the brewery. Prices and profits are in a state of constant flux and change. No manufacturing industry can be certain of its earnings a year hence.

But from these perturbations of commerce, the railway company is, to a large extent, protected. The immense variety of its traffic prevents rapid changes in the gross amount. What is lost on one commodity is often regained on another, and the total tonnage is not reduced. The experience of the Pennsylvania during the anthracite strike of 1902 is in point. This road hauls both anthracite and bituminous coal. As a result of the strike, the anthracite traffic was suspended, and the anthracite roads, such as the Reading and the Lehigh Valley, the bulk of whose traffic consists of this single commodity, suffered a heavy loss. But the Pennsylvania hauled the bituminous coal which took the place of anthracite in the Eastern markets, and the increased earnings from this source more than offset the loss on anthracite coal. The repeated experience of the Illinois Central Railroad Company, whose lines traverse the corn belt and the cotton belt, has been that a loss on corn is likely to be made up by a bumper cotton crop. Only in the unlikely event of a failure of

both crops can the earnings of this railroad be seriously reduced.*

It is no doubt true that over extended periods the ebb and flow of prices and production can produce considerable fluctuations in railway profits; but these are not to be compared with the changes in the manufacturers' profits in the same section of the country. Moreover, the stability of railway profits tends constantly to increase with the progressive diversification of industry and the increase in passenger travel. The traffic of the Granger Roads, for example, contains each year a larger percentage of manufactures and merchandise. A striking illustration of this tendency was furnished by the increase of earnings of these roads during the first six months of 1902 in the face of a 50-per-cent corn crop, and a heavy reduction in the yield of oats and hay in 1901. These companies which ten years since would have been severely injured by a failure of these crops, have now so diversified their traffic that they are more than able to recoup themselves out of the general prosperity for their losses on agricultural freight.

This tendency to increasing stability of profits does not characterize manufacturing industry. On the other hand, this is growing constantly more specialized. Its extensions almost invariably take the form of increased control over the sources of materials supply, and, therefore, have the effect, as will be shown in another place,† of increasing the fluctuations of manufacturing profits. So far as concerns the relative stability of demand in the two industries, it is easy to see why the investor prefers a railway bond to

* For evidence of the increasing diversity of railway traffic, the reader is referred to the reports of the companies, which are usually sent on application to the secretary. The reports of the Chicago, Rock Island and Pacific are particularly valuable for illustrating the above principle.

† Chapter XVII.

a manufacturing bond. The profits of the railway industry tend to grow more stable. The profits of manufacturing industry, on the other hand, because of the narrow limitations of the demand for its products, grow constantly more irregular and incalculable.

We find the distinction between transportation and manufacturing industry, which is based on the respective stability of their profits, to hold good when their respective liability to competition is considered. A railway company has a natural monopoly. After the territory through which its line passes has been fully settled, and the day of State and local donations of land and cash has passed away, competition becomes very difficult. More especially is this true because of the increasing expense of terminals. The Baltimore and Ohio was forced into bankruptcy, among other causes, by the cost of its entrance into Philadelphia, where it hoped to compete with the Pennsylvania, and the result of the collapse in the stock of the Baltimore and Ohio was to enable the Pennsylvania to purchase control of its rival on easy terms. Even where competition exists between the larger cities, the local traffic is generally free from its influence. Moreover, the way and structure of a railroad may be considered as a permanent equipment to which the company is constantly adding. It is well known that there are many roads in the United States whose equipment could not be duplicated for the amount represented by their capitalization.

These factors of permanence in the railway industry, although sometimes negatived by sporadic competition, are constantly increasing their importance. When competition is settled by some agreement or purchase, it stays settled. Every year makes it more difficult for new capital to enter the field. It is conceivable that certain interests may succeed in uniting the Wabash with some Eastern

line, and in this way may parallel the Pennsylvania from New York to Chicago. In such a case—although some time would elapse before an agreement between the rivals could be reached—when peace should be finally declared, it is difficult to see how another competitor could gain a similar advantage. In the nature of things, the railway industry is a monopoly, and a monopoly which tends to become constantly stronger. The margin of security for its interest payments can be counted upon by the investor with much certainty.

Manufacturing industry, on the contrary, is seldom safe from competition. The nature of manufacturing competition, and the desirability and methods of restricting such competition have already been considered. The expedient of the trust represents the most effective device yet discovered to accomplish this end, but even in this form, manufacturing industry is never free from this danger. In current discussions of the trust problem, it has been assumed that the consolidations, because they were formed to restrict competition, must necessarily result in monopoly.

This assumption is not to be admitted without scrutiny. The generally accepted view of monopoly defines this term as follows: Monopoly is such a control of a market by a seller as will permit him to charge a price for the article or service which he produces, above the price which could be obtained if others were offering to supply the demand for this article or service in the same market. In other words, a monopolist makes an unusual profit at the expense of the consumer. The railway is, in this sense, a monopoly. Were competition in railway transportation unrestricted, the rates of charge would doubtless be lower than they are at present. The policy of enlightened railway management is to charge such rates as will furnish the largest volume of traffic to their lines. In order

to increase the volume of traffic, they must adjust their rates so as to allow the shipper a sufficient profit to induce him to enlarge his operations as rapidly as possible. Beyond this they are not obliged to go. The margin of profit above this necessary amount can, therefore, be taken from the shipper without detriment to the interests of the railroad.

But in manufacturing industry, these monopoly gains are much more difficult to secure. It is true that some monopolies have been built up by alliances with railway companies, but these illegal understandings can not be considered in estimating the security of a bond issue. No investor would buy a bond whose security depended on continued violation of the law. At any time, a breach of the secret agreement, or its discovery and prosecution in the courts, might destroy the foundation of the monopoly advantage. And beyond this limited and dubious field, without some exclusive right or some exclusive control of the supply of material, it is difficult for a manufacturing company to long preserve a monopoly. If a company attempts to charge prices yielding a profit above what other companies are making, there is a reasonable certainty that competition will soon spring up. The only way in which permanent control of a market can be secured, is to lower prices by reducing the expenses of production so that competitors can only enter the market at a loss. Competition will be longer delayed in some industries than in others; but sooner or later, if the inducement of monopoly profits continues to be extended, it will spring up. If the trusts are to justify the hopes formed concerning their increased profits, it must be because they reduce the expenses of production below the costs of competing plants, and not because of any considerable advance of prices.

The only perfect monopoly is that which the law confers upon the owner of a patent. All others, at best,

represent but partial control of manufacture and sale. An individual to whom the National Government has granted the absolute right of manufacturing and selling a certain machine or process, is secured in the privilege.

The patent monopoly, however, is subject to certain conditions and limitations. A patent expires at the end of seventeen years. Moreover, the originality of the invention must be tested in court before the patentee can be certain of legal protection in his right. If the invention proves valuable, there are always men or corporations who will attack its originality in the hope of either invalidating the invention in whole or in part, or of receiving money to withdraw their claim. Moreover, these attacks are often well grounded; for it is next to impossible, in this day of accumulated knowledge, to hit upon something which is absolutely new. Somewhere in the world, it may be in an obscure laboratory, or in a corner of some workshop, the most promising invention has been at least suggested; and a suggestion of anticipation is enough for a contest.

Again, the value of a patent is constantly threatened by the danger of substitution. The end desired may be reached by some other road than the one upon which the patentee has the exclusive right to travel. As soon as the value of a patent is proved, men set to work upon the problem which it has solved in the endeavor to find some other solution, and it is but seldom that one of them does not succeed. The writer knows of a case where a patent was granted for an improvement in a certain device, in which the only change was the substitution of a weak for a strong spring. A patent is a valuable thing to the owner, if it gives him the first chance at an industrial opportunity, and to an energetic man this is generally all that is needed to secure success. But as a basis for investment value a patent is worthless. No well-informed in-

vestor, unless in the most exceptional cases, would buy a bond of a company whose earnings were dependent on the monopoly of a patent.*

We have finally to consider the possibility of a monopoly based on the control of the supply of raw materials. Many claims have been made, during the past four years, that such a control has been effected by the trusts, and that for this reason they can maintain prices on a high level without danger from competition. President Schwab, before the Industrial Commission, on May 11, 1901, made the following statement concerning the coking coal-land possessed by his company: "We own something like 60,000 acres of Connellsville coal. You could not buy it for $60,000 per acre, for there is no more Connellsville coal. . . . Of course there are other coals, but it is a well-known fact that the Connellsville coking coal is an ideal coal for manufacturing purposes. Now, this coal is very clearly defined, and every acre of it is highly prized, and it is owned by these constituent companies *in toto*. There may be developments of coal in other directions, but nothing like this coal." † The United States Steel Corporation, in other words, is stated to be in possession of a monopoly advantage. Let us examine this claim.

The Connellsville coal region is an offshoot of the Pittsburg seam, extending in a narrow belt about thirty miles long, through portions of Fayette and Westmoreland

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* Municipal franchises should also be included in any complete discussion of monopoly. Of these, street railway and dock franchises contain more of the monopoly element than gas, water, or lighting franchises. For a full discussion of the conditions and limitations of various forms of investment security, the reader is referred to The Art of Investment, published anonymously by the Appletons.

† For a full report of President Schwab's testimony, see Iron Age, May 16, 1901.

Counties in southwestern Pennsylvania. This region has long enjoyed a practical monopoly of the coke trade of the central west and the Atlantic seaboard, its only competitor, until recently, having been the Pocahontas coal field in West Virginia. The monopoly enjoyed by the coke producers of this region was primarily due to the peculiar suitability of their coal for coking by the process generally in vogue; and also to the general use of the Bessemer process of steel production. Until recent years, coke has been manufactured in ovens of the beehive pattern, in a layer of some two feet in thickness. The shape of these ovens has not been materially changed since the beginning of the industry. The Connellsville coal, which forms an exceptionally strong coke in burning, was the only coal in the Northern States from which a strong coke, that is to say, a coke which will sustain a heavy weight in the blast furnace without breaking down, could be made. Numerous attempts have been made, especially in the Pittsburg district, to make a satisfactory coke from other coals, in the beehive oven, but they have not succeeded, the coke formed from these coals being too weak to hold up the load in the furnace.*

Connellsville coal possesses another advantage in that it is very low in sulfur and phosphorus. In the acid Bessemer process of steel making, the presence of these impurities in the iron is highly objectionable, and in order to secure a good grade of Bessemer pig iron, it is not only necessary that the ores should be low in phosphorus and sulfur, but also that the coke used in smelting should be equally pure. Thus matters stood until within the last ten years. Sales of coal-lands in the Connellsville region have been made for $1,500 per acre—an extraordinary price for bituminous coal.

* For a full description of the Connellsville field, see Engineering Magazine, vol. xxii, p. 41 ff.

Since 1893, however, and especially since 1897, this monopoly of the Connellsville coke maker, upon which President Schwab places such a high value, has been gradually undermined. The agencies which have brought this about are the by-product coke oven and the open-hearth process of steel making. In the by-product process, first introduced into the United States in 1893, the coal is coked in a high, narrow retort; that is to say, under heavy pressure, and by the application of external heat, no air being admitted to the coal. By this method, it has been found practicable to produce a strong coke from a great variety of coals. Western Pennsylvania is full of coking coals, which, while unsuitable for the beehive oven, do very well in the by-product oven. Coke is now made by this process from coal produced outside the Connellsville region, by a number of independent steel companies, the Lackawanna Iron and Steel Company, the Cambria Steel Company, and the Maryland Steel Company being among the number. There is no longer much doubt that any steel company which can pay $100 to $200 per acre for coal-land can make itself independent of the coal-land of the Connellsville region.*

With the by-product coke oven, has come the open-hearth steel furnace, the peculiarity of which, for the present purpose, is the fact that it is lined with dolomite, instead of silicon, which possesses the property of uniting with any sulfur and phosphorus which may be present in the bath of metal, thus producing a grade of steel which is for many purposes superior to Bessemer steel. The rapid development of the open-hearth process in the United States—but few Bessemer converters having been erected

* An excellent account of the by-product coke industry is given in the Engineering Magazine, vol. xx, p. 17. See also an article by Dr. F. Schnewind on the Recent Development in By-product Coke Ovens, Progressive Age, May 1, 1902.

in recent years—has tended still further to weaken the monopoly of Connellsville, by permitting the use of high sulfur coke in the blast furnace. The decline of the Connellsville coal monopoly illustrates the danger to every monopoly based on a supposed control of raw material supply. If no new deposits of equivalent material are discovered, as was the case in the Pocahontas field, then a way will generally be found to utilize material before considered unsuitable.

Another illustration, drawn from the same field as the preceding, shows the present danger of the anthracite coal monopoly. As a result of the interruption of anthracite production by the strikes of 1900 and 1902, bituminous coal is largely usurping the place of anthracite coal for steam purposes. For domestic purposes, the use of coke and gas is on the increase; and in flat buildings, apartment houses, and hotels, in which a larger proportion of the city population is each year living, the use of bituminous coal, sometimes mixed with a low grade of anthracite, is giving satisfaction.*

The International Paper Company, as we have already seen, announced in its prospectus that its monopoly was secured by the possession of large tracts of timber-land in Canada and Maine, which could not be duplicated. Its position, therefore, in the opinion of the trade, was invulnerable. Hardly, however, had the publisher felt the first pinch of monopoly, when substitutes for the raw material were discovered. The magnolia-tree, which will grow anywhere in the lowlands of the South, furnishes a satisfactory grade of wood-pulp; and paper has, within the past three years, been successfully made from cotton-

* The strength of many monopolies is the inertia of the consumer. The prejudice in favor of anthracite coal is an illustration. For many purposes, bituminous coal and coke are preferable to anthracite, but much time is required to convince the consumer of this fact.

seed hulls, oat hulls, bagasse, and other vegetable substances.

Examples of the power of substitution could be indefinitely multiplied.* A sufficient number have been given to show how impossible it is that any single company, unless, literally speaking, it owns the earth, can, for many years, maintain a monopoly control over any one of the materials of industry.

The difficulty of achieving a manufacturing monopoly is but another expression for the liability of manufacturing industry to competition, and competition is always dangerous. It is true that a combination of good sense and good fortune may achieve success, but the danger of failure is always present; and even if success is achieved, its measure may be small. The constant imminence of competition makes the investor cautious about buying the long-time bonds of a manufacturing company. He may buy the stock, offsetting the risk by the higher returns on the investment; but in a bond which pays, at best, only a moderate return, the maximum security is demanded.

The three remaining considerations with which this chapter opened must be passed more briefly in review. The location of transportation industry does not change so much as to endanger the value of railway bonds. It is true that the rate of industrial development, the emphasis of investment, so to speak, varies from one year to another in different parts of the country. At one time, it is the Southwest that advances most rapidly. At present, the Northwest is receiving special attention. But with all these shifts of investment interest, the general movement of every section is steadily upward, and carries with it the earnings of the railways.

During recent years, for example, New York has been

* For a fuller discussion of the limitations of monopoly, see an article by the writer under this title in the Forum for April, 1901.

losing its supremacy as an exporting center. Philadelphia, Baltimore, and New Orleans, it is claimed, have been diverting trade away from New York. This claim is correct, if we understand it to refer to the relative advance of the trade of the Southern ports as compared with New York. But the meaning of this "loss," for the present purpose, is merely that New York is advancing less rapidly than her competitors, and not that her trade is diminishing. In 1884, to put the matter concretely, the export trade of New York was 44.1 per cent of the total export trade of the United States; in 1901, 35.3 per cent, but during the same period the value of the exports of New York increased from $320,000,000 to $516,000,000. While losing in relation to the advance of other cities, absolutely the trade of the port of New York increased 61.5 per cent. Railway earnings, in view of this constant growth of wealth and prosperity the country over, tend always to advance. Their rate of growth is never the same for any two sections in any given period, but the general movement of all of them is always upward. The investor in the bonds of an established railway company need not, as a rule, disturb himself about the future of the company which has borrowed his money.

With manufacturing industry, however, we find a situation entirely different. Here nothing is fixed or settled. Changes in location are constantly being made. Thirty years ago there was a prosperous iron industry in the Champlain region of New York. Of recent years, the competition of the Lake Superior ores has closed many of the New York furnaces. On the other hand, the rich ores which have given the Lake Superior region its monopoly are being gradually exhausted. Furnace men are now using 55 per cent ores who, a few years since, would not buy anything below 60 per cent in iron content. As the yield of the Lake Superior ores declines, the ad-

vantage of that region over the leaner ores of the East declines also. There is already a considerable revival of interest in the iron-mines of New York and New Jersey. To-day Pittsburg is the center of the steel industry of the United States. Its advantage consists in its proximity to the Connellsville region, and to its own fuel supplies. It is an open question, however, whether the lower lake ports, and particularly Buffalo, do not offer superior advantages for steel making. The use of other coals in the by-product oven, which tends to diminish the importance of Connellsville coke, and the disadvantages of Pittsburg in transportation facilities, support this contention.

The cotton industry is another example of a shift in industrial location. Southern cotton mills are every year invading the field of the finer fabrics hitherto largely monopolized by New England, and the Northern mills are already hard pressed by their competition. No manufacturing industry is secure in its present location; and the investor who buys the bonds of a manufacturing company bears this fact in mind, and insists upon a sinking-fund, and an early date of maturity, as well as upon a lower price.

The personal equation is far more important in manufacturing industry than in railroading. The operations of a railroad are simple and uniform. They repeat themselves under all conditions and in every section. The appliances of a railroad are also relatively simple, and easy to understand and operate. A locomotive engine is the most complicated machine of a railway, and the mechanism of a locomotive is relatively simple. Railroading has been called an exact science. There is little difficulty in filling vacancies in the most important positions. Railway operation is now largely a matter of uniform routine. The investor in railway bonds may justly concern himself with the financial management of a property, but he can

now be confident that the security of his bonds will seldom be impaired by blunders in the operating or construction departments.

In manufacturing industry, however, the personal equation is of great importance. The processes and machinery are so complex and the necessity for change is so constant, that the ability of the manager is often the deciding factor in the success of the business. The alarm which was felt over the withdrawal of Mr. Percival Roberts from the directorate of the United States Steel Corporation, and the consternation caused by the recent illness of President Schwab, show the importance of personal ability in industrial management. It has been stated by persons who are qualified to judge, that there is probably only one man in the United States who could fill Mr. Schwab's place at the head of the Steel Trust.

There has recently come to the writer's knowledge an example of the importance of the personal equation in manufacturing enterprise, which is the more interesting because the attention of the investing public has not been directed to it. The failure of the New England Gas and Coke Company of Everett, Mass., to realize the expectations of its promoters, and the drastic reorganization through which it is now passing, are matters of general knowledge. This company was organized in 1897, to produce gas from Nova Scotia slack coal in by-product ovens, and sell this gas for fuel and lighting purposes to the Boston gas companies. The company erected 400 Otto-Hoffman by-product ovens and expected to increase the number to 1,200, at an early date, in order to supply gas to other parts of New England. It was expected that the coke produced in connection with the gas, would have a ready sale in competition with anthracite coal for domestic purposes, and would also compete with bituminous coal for steam uses. On the strength of these expectations,

$16,370,000 of 5-per-cent bonds, besides a large amount of stock, were issued.

Now observe the consequences of technical ignorance to the investor. The coke produced could not be sold at a remunerative price. Moreover, the construction of ovens was faulty. At one time 150 ovens were idle while repairs were being made. Complaints were made that the New England Company was not supplying the necessary amount of gas to the local companies. The ash of the Nova Scotia coal contains a large percentage of silicon and iron, causing the coke made from it to form a very hard clinker which it is difficult for the fireman to handle. In addition to this special objection, coke is bulky, of irregular combustion, and hard on grate bars and crown sheets. Several former consumers of the coke in Boston informed the writer that they preferred bituminous coal to Otto coke, even at a cost of $1 per ton more than the price of the coke. As a result of the unpopularity of the coke, and also owing to the faulty construction of the ovens, the company failed to earn its interest charges, accumulated a large floating debt, and was finally forced into a receivership. A better illustration of the importance of the personal equation to the investor in industrial bonds could not be asked for. The success of every manufacturing company depends upon the ability of the management, and often upon the life of one man. The permanent security of a manufacturing bond, for this reason, is made very uncertain.

The final consideration affecting the relative value of railway and industrial bonds is what may be called the "comprehensibility" of the two industries. The railroad is visible. The investor, it may be, rides daily over a portion of its lines. Its equipment and its operations are always in evidence. He can see the property, and can understand its working. This character of simplicity

extends even to its reports. A properly kept railway report, to a man of average intelligence in such matters, is plain reading. The operations of a railway consist in transporting a certain number of tons of freight and a certain number of passengers, for a certain amount of money. Its expenses are easily understood. Its equipment can be enumerated in detail. The investor can follow its history from one year to another, and is not obliged to employ an expert to explain its reports to him.

But the manufacturing company has none of these advantages. To begin with, its plant is largely invisible. A holder of a United States Steel bond might obtain permission to go through the Homestead plant, but he would run some risk in doing so. His clothing would be burned into holes by flying sparks. He would have to dodge locomotive engines running at top speed around corners. He would be almost deafened by the noise, and often scorched by the heat. Moreover, for all his pains, he would understand very little of what he saw, and he would not care to repeat the experience. The full report of such a company would be equally unintelligible to the uninitiated. What does he know about a universal plate mill, or a Wellman-Seaver charging machine, or a Jones mixer—probably nothing. He has never seen these important appliances of a steel-mill, probably never will see them, and would understand little about them if he should see them. The technical jargon of an engineer's report would be equally unintelligible. An investor who purchases industrial bonds, buys into a company of whose equipment and operations he usually understands very little.

The inferiority of industrial bonds to railway bonds is now seen to be a reflection of the greater uncertainty and instability of manufacturing industry. The investor in the bonds of a manufacturing company, therefore, must have special inducements in price, and extra protection in

his contract. He demands that the bonds run for a short term, and that provision be made for their early retirement. Altogether, the security which the trusts have selected as a means of obtaining new capital is, from every point of view, undesirable. The writer would not be understood to assert that the bonding policy of the trusts has as yet brought them into a position of danger. The examination shows that the fixed charges of most of the trusts are still within the limits of safety. The industrials are at present in more danger from their policy of incurring floating debt than from their bond issues. But it is important to observe that they have embarked upon a policy of bond issue which may in time lead them into jeopardy.

The judgment of the investor is not conclusive as to the safety of a bond. The history of railway finance is full of instances where general mortgage or second mortgage bonds have been purchased at high prices, only to default in interest a few years later, and finally to be exchanged for preferred or common stock. The investor in industrial bonds, although, as we have seen, he demands concessions in price and special provisions for security, usually acts on the judgment of financial advisers, and frequently makes serious blunders. The bonds of Asphalt of America, United States Flour Milling, and New England Gas and Coke, are recent examples of such errors of judgment, and show that excessive issues of bonds may be sold to investors who might be supposed to know better than to buy them. The interests of the stockholder and of the public unite to demand of the trusts great caution in the issue of bonds. Up to the present time, as just pointed out, they have not exceeded the limits of safety in this matter; but in view of the doubtful security of manufacturing bonds, it is necessary that this policy of narrow restriction should be continued,

CHAPTER XVI

THE CAPITALIZATION OF CORPORATIONS

The capitalization of a corporation is the face or par value of the stocks and bonds which the corporation has issued. The Colorado Fuel and Iron Company, for example, has outstanding the following securities:

Common stock	$23,931,000
Preferred stock	2,000,000
Bonds	22,417,000
Total	$48,348,000

This sum of $48,348,000 is the capitalization of the company, the par value of its stocks and bonds, the amount of the liability—or accountability—which the company acknowledges. There is general agreement upon this definition of capitalization, and its discussion need not, therefore, detain us. When we approach the discussion of what is called overcapitalization, however, we encounter a subject upon which there are wide differences of opinion. When is a corporation overcapitalized? On its face, the answer is easy. The term "overcapitalization" plainly refers to a comparison between the face value of the securities which a company has issued and some other figure. To the mind unaccustomed to grapple with scholastic subtleties, the basis of comparison is the ascertained value of the productive assets of the corporation, which is the capitalization of its net earnings over a period of years. In short,

the comparison which must be instituted to determine whether a company is overcapitalized or not, is between the value of the corporation as a going concern, and the expression of that value on the face of its stocks and bonds.

We may define overcapitalization, therefore, as that condition in which the par value of the securities of a company exceeds their actual value based on profits. The term "overcapitalization" implies a converse "undercapitalization" which may be defined as that condition in which the actual value of the assets of a corporation is greater than the par value of its securities. On the basis of these definitions, we may say that the United States Leather Company, which pays no dividends on its common stock, and whose preferred dividends are largely in arrears, is overcapitalized. The par value of the outstanding stocks of this company is $125,164,600, while their market value, reflecting the judgment of the stock market as to their earning power, is $54,185,601.* The overcapitalization of the United States Leather Company is, therefore, $70,978,999, the difference between the par and the mar-

* Exception may be taken to this method of ascertaining the value of a corporation as a going concern by multiplying the number of its various issues of securities by the figure representing their par value. It must be conceded that the judgment of the market is at best only an approximation of the true value of a corporation's assets. It is true, for the bonds, this method is accurate, but for the stock it is decidedly faulty. If the company is gathering a large reserve, the market value of its stock will be below its real value. If, on the other hand, profits are being freely paid out in dividends, the market value will exceed actual value. But admittedly imperfect as are these valuations, they are the only valuations which we possess. They are established by men whose business it is to make correct judgments of earning power, and they must therefore be accepted as the most accurate valuations of a corporation's assets which it is possible for an outsider to make. See Wall Street Journal, September 11, 1902, for an illustration of the use of this method.

ket value of its securities. An example of undercapitalization is furnished by the Great Northern Railway Company. The par value of its stock is $123,778,000, while the market value, as a result of high dividends combined with nearly perfect security, is $232,702,640. The undercapitalization of this company is, therefore, $108,924,640. If "over" and "under" are to be understood as terms of invidious distinction between the conditions of capitalization which they describe and some third condition which may be styled, for lack of a better term, "proper" capitalization, we may understand the last-mentioned term to refer to a condition where par and market value correspond; in other words, where the corporation is "worth" precisely the sum which the face of its stocks and bonds declare its liabilities to be. In short, a corporation may be said to be "properly" capitalized when its securities will sell for their face value.

This definition contains two practical implications: First, that the capitalization of a new company should be based upon a conservative estimate of its earning power; and second, that this capital should be increased from time to time as increasing earnings warrant.

These definitions and distinctions are necessary to pave the way for a discussion of a current theory of overcapitalization, likely to lead, at no distant date, to important legislation. There is a conviction among the advocates of radical legislation on the subject of corporations, that capitalization should correspond to money invested, or to cost of replacement. It is generally believed that the capital of every company should be "paid up," either in cash or valuable property, before the company begins business, as the capital of a National Banking Association is required to be paid; and that any subsequent increase in capital should be made in the same manner,

full consideration in every case being received by the company from the sale of its securities.*

The assumption made by the advocates of this theory, that the basis of investment value is the investment of money, is erroneous. There is no necessary connection or correspondence between the amount invested in a mining company, for example, and the value of the company's property. The property has value because from it, is produced a valuable metal. The larger the product, the lower the cost of operation, and the higher the price the more valuable will be the securities of the company. It is true that two of these value-making factors, viz., output and cost, depend, to a certain extent, upon the investment of money, for example, in mining and smelting machinery. Even these, however, are influenced quite as much by other causes as by the expenditure of money in equipment; and with the primary cause of value, the demand for the product, the amount of money invested in its production has nothing to do. The production of the mine depends upon the thickness of the vein; upon the purity of the ore; upon the ease of working as influenced, for example, by the necessity for drainage; upon the ability and energy of the superintendent and bosses; and upon the state of the labor market, and the character of the laborers. All these factors influence the cost of production, which also depends upon the price of supplies, the freight charges of transportation companies, and the character of the financial management.

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* The Littlefield Bill, recently introduced into the House of Representatives, levies an annual tax of 1 per cent per annum on such portions of the capitalization of corporations engaged in interstate business as represents the capitalization of earning power, and attempts by this means to restrict the capital of such companies to the "cash market value" of their assets. By "cash market value" is meant "money invested" or "cost of replacement."

As for the price of the product, this has little connection with the amount of a particular investment. The investment of $1,000,000 in the equipment of a copper-mine, for example, operates to depress the price of copper by increasing the supply, but it does not in any way touch the demand. At the present time, the cost of mining machinery is much greater than in 1901, while the price of copper, the profits of copper mining, and the value of copper stocks have all experienced a severe decline. The amount of the investment required to equip a copper property for a given output has increased, while the value of the property after it has been equipped has declined.*

Whatever may be said of the expediency, as a matter of public policy, of the rule that the aggregate par value of a corporation's securities should not exceed the money invested in the property, the two sums, the amount invested and the amount realized, have usually little in common. Value is a social fact. It is the result of the play of the forces of substitution, competition, fashion, invention, upon the demand and supply of a particular article. To identify it with cost is impossible. The larger amount of the value of urban real estate, agricultural land, forests and mines, the bulk of the world's value, has not been produced by the investment of capital in the development of these resources, but by the force of the demands of society for the products produced by their utilization. The money invested in development, it is true, is the key which unlocks the treasure-house. It is the percussion cap which ignites the charge. It is an important and indispensable cause of value. But it bears no neces-

* For a general discussion of the fallacy of the definition of over-capitalization contained in the Littlefield Bill, see a series of three articles published in the New York Evening Post, January 6, 10, and 14, 1903.

sary correspondence with the value result which the demands of the world achieve.

Let us proceed to a further and final contention which represents the serious argument against capitalizing value instead of cost. It has been often charged that the increase of capital without the addition of new funds is opposed to the interests of the community for the following reasons:

(1) The corporation is obliged to pay dividends on this extra, or "watered" stock, which results in higher prices of product to the public.

(2) The payment of dividends on a capital larger than the cost of duplicating the corporation's equipment is an inducement to competition, which results in an unnecessary duplication of railroads and mills, and in a waste of the national resources.

(3) The issue of securities for which no cash equivalent has been rendered, often results in the sale of large amounts of worthless stocks and bonds to the uninstructed public. These arguments refer to matters of great importance and merit a careful consideration.

First, then, as to "dividends on watered stock." The received opinion is expressed by an eminent writer on social economics in reference to the trusts as follows: "Such a gigantic attempt to bind burdens upon the whole community of consumers must provoke a violent reaction. These thousand millions of watered stock are simply a legalized demand upon the people for contributions of their substance to those who have given them nothing in exchange." * This opinion is generally accepted without serious question by advocates of corporate regulation. And yet the experience of any business furnishes abun-

* See Report No. 3375 (H. R., 57th Congress, 2d Session) from the Committee on the Judiciary on the Bill requiring Returns from Corporations, etc., pp. 19–21, for a full presentation of this point of view.

dant evidence that the assumption that higher prices and rates are the result of an attempt to pay dividends upon watered stock can be accepted only with considerable reservations.

It may be laid down as a general principle of price regulation, that every business concern, no matter on what basis it has been capitalized, fixes its prices at the point of largest return. A corporation is not in business for the benefit of its customers, but for its own benefit. Its prices are not graduated according to what the buyer would prefer to pay, but are based upon what he can be made to pay. If a corporation has a monopoly of a particular line, it will fix its price at the point of maximum net return, i. e., at that point where, account being taken of the larger consumption at low prices and the decreased cost of production with large output, and, on the other hand, of the decreased cost of distributing a smaller output, the net return on the sale will be the largest. If the corporation has competitors, its prices will be influenced by the quotations of its rivals. In no case will lower prices be charged than the self-interest of the seller directs. A competent business man will usually consider nothing save his own profit in fixing the offering price of his goods.

The fallacy that the natural tendency of business men is to charge a "proper price" has dominated the argument against railway corporations. They have been charged with maintaining exorbitant rates in order to pay dividends on watered stock, when, as a matter of fact, they have always, in so far as public opinion would allow them, determined their charges by the exigencies of competition, and by the principle of charging what the traffic will bear.*

It is no doubt true that the pressure for dividends has

* For a full discussion of this subject, see Final Report of the Industrial Commission. Section on Transportation, pp. 412–415.

often influenced a board of directors to take undue advantage of a temporary opportunity to exact high prices or high rates; but if prices or rates were higher than the traffic would bear, the inevitable effect of such extortion was to reduce the profits of the corporation below the figure at which wise management would have placed them. It is also true that railroad corporations have sometimes been able to prevent a reduction of rates by railroad commissions, by making it appear that the new schedule of rates would render impossible the payment of interest or dividends on issues of bonds or stocks which bore no reference to the capital invested in the road, but which are necessarily looked upon by the courts as constituting a vested interest in the hands of innocent holders whose rights must be protected.

But although the watering of stocks and bonds may thus be made a means of securing a corporation in the enjoyment of the revenues of monopoly advantage, by interposing an innocent third party, the investor, between the corporation and the public power, it has nothing to do with fixing the schedule of charges upon which the revenues depend. The number of pieces of paper representing the title to a steel corporation, and which entitle their holders to share pro rata in any disbursements of profits which the directors may make, has no more to do with the price of steel rails or steel billets than the number of persons among whom those pieces of paper may be divided. The price of oil is no lower because the stock of the Standard Oil Company of New Jersey is selling at 700, and the price of steel rails is no higher because the common stock of the United States Steel Corporation of New Jersey is selling at 35. Both steel and oil are sold for the prices which will produce the maximum profit, and there is no more reason why that price should advance because the capital is increased than

that the capital should decrease because the price is reduced. The corporation is a unit, an association, managed as a single business, without reference to the amount of its nominal capital or the number of its owners. The clamor for dividends may drain the corporation of its substance by reducing its surplus, but it can not permanently influence dealings with its customers.

The claim that the existence of watered stock stimulates competition has stronger authority to support it. Thus the Wall Street Journal of March 8, 1898: "Any plant which is overcapitalized and which pays dividends on overcapitalization, invites competition by announcing that a competitor capitalizing his plant at its true value can earn dividends. If there is overcapitalization, there is certain to be competition. . . . It is an economic law that profits in any line of business will not continue to exceed a fair return on the capital invested in the plant." In other words, it is claimed that the competitors of the United States Steel Corporation, for example, are encouraged to press forward, by the belief that the sum of the figures set out on the faces of the shares and bonds of that company represents an amount in excess of its investment value.

Within limits, this opinion is well founded. An excessive capitalization on which dividends are being paid is certainly a protection to outside companies. Upon this subject, some remarks of the Iron Age on the occasion of the formation of the Steel Trust are of interest: * "Probably none have greater occasion to rejoice at the turn which affairs have taken than the outside interests. The majority of the latter express themselves as well pleased with the formation of the great consolidation. Above all, they hold that a less aggressive policy will be pursued than has characterized some of the constituent interests, and

* February 28, 1901, p. 28 c.

that they will be gainers from the greater steadiness which is sure to characterize the markets. They frankly admit, too, that they see increased safety to their own interests in the fact that the corporation must provide for large fixed charges and will probably make efforts to earn a good return on that part of their capital which they pronounce 'water.' That means that living prices must be maintained—prices which will give them an opportunity to make a profit on their own investments." In other words, the large capital of the Steel Trust will, in the opinion of its competitors, influence its managers to a more pacific and conciliatory policy than that formerly pursued, for example, by the Carnegie Company, and will render them less ready to resent outside invasion of their territory. This expectation is no doubt well founded, and has probably influenced the competitors of the steel corporation to increase their productive capacity more rapidly than they would otherwise have done.

Moreover, indications have not been lacking of influences of overcapitalization even more sinister. In an endeavor to market their stock, the interests temporarily in control of certain corporations have marked up prices to exorbitant and unbusiness-like figures, and have in this way given large encouragement to competitors. Charges have been made, although they do not rest upon direct evidence, that many plants have been built for the sole purpose of selling them out to some company which was endeavoring to retain control of a particular industry. This operation has been picturesquely described as "sand-bagging the trusts," and, it is claimed, is a profitable business.* These

* The recent sale of the Union Steel Company to the United States Steel Corporation has been explained with some show of plausibility as a sale under compulsion from the seller, although there is reason to believe that the assets of the Union Steel Company were worth the price paid for them.

two variants from established business practise may perhaps be cited as further evidence that overcapitalization stimulates competition.

But while so much may be conceded to those who advocate the theory that overcapitalization stimulates competition, on the general proposition, denial must be made. A man engages in a business because he sees an opportunity to make a profit by producing or buying commodities at one price, and selling them at a higher price. He does not look to the capitalization or the dividends of his competitors when forming a final judgment as to the profit of an enterprise. Large dividends on large capital may call his attention to the profits of an industry, but the factors determining a change in his investment are the conditions of the industry and the prospects of the market.

A group of men proposing to engage in the manufacture of steel rails, for example, would take into account, among other things, the following factors: (1) The supply of raw material; (2) the labor and superintending force; (3) the transportation facilities; and (4) the prospective demand for steel rails. After they had reached a conclusion based on these considerations, they would turn their attention to the position and strength of the manufacturers already in the field, and here the capitalization of competitors would be taken into account. But the decisive elements in the formation of such a judgment—the main considerations which enter into any scheme for building competing plants—are the factors affecting the cost of production and the demand for the product. The dividends of competitors are not to be relied on as a guide to profits. They may be concealed or exaggerated. The foundation of conservative judgment is composed of the known facts of the industry which it is proposed to enter.

The third objection to the method of capitalizing a corporation on the basis of value instead of investment or

cost of replacement, is founded on the claim that such capitalization leads to the issue of large amounts of worthless securities. The consequences of such issue will be more fully considered in a subsequent chapter, but in this place it is proper to admit that the method of capitalizing earnings generally employed in the United States, has often resulted in deluging the speculative public with the stocks and bonds of new enterprises whose prospective earnings are never realized. The evils resulting from these practises are generally deplored. It must be admitted also, that the enforcement of a law which would limit the issue of capital to the amount actually invested in an enterprise, would have the effect of banishing from the stock exchanges the low-priced, speculative securities whose number is a standing reproach to our financial methods.

Suppose, for example, that the original capital of the United States Steel Corporation had been limited to the amount of money which has been actually invested in the various properties of that corporation, and which has been estimated at from $150,000,000 to $500,000,000. Let the latter figure be chosen as the amount of the original investment, and suppose that the capital had been divided into $250,000,000 of 7-per-cent cumulative preferred stock and $250,000,000 of common stock. After such a readjustment, the value of the preferred stock would be considered safe and it would probably sell around 150. The common stock, which now falters and staggers around 35, would, on this basis of capitalization, show earnings of more than $100,000,000, out of which a 25-per-cent dividend could safely be paid out of the profits of the current year, while $50,000,000 could be applied to the various improvements for which the directors are now trying to borrow that amount. Under these circumstances, on the basis of the Standard Oil stock, which represents a

conservative capitalization, United States Steel common would sell around 400. Altogether aside from the merits of the current theory of capitalization, to which important exceptions have been taken, it must be admitted that the effect of enforcing upon the promoters of companies such a rule as the one suggested would be to place the securities of these companies, if their management were only ordinarily successful, upon an investment basis. Such a result, few will deny, would be desirable.

The expediency of instituting such a drastic change in corporation regulations, however, may be seriously questioned. In point of security, Standard Oil at 700 is not as safe as Pennsylvania at 160. During the first six months of 1902, for example, the price of the former fell from 700 to 620, not as a result of any lack of confidence in the company, but because of the limited floating supply of the stock, and the narrow restriction of its holdings. Pennsylvania stock, on the other hand, equally secure in its earnings, fluctuated only $7\frac{1}{8}$ points during the same period.* It is, to repeat, a question whether any great benefit is gained by so limiting capitalization as to make shares of stock sell at 600 per cent premium. Nothing is gained in security. The investment interest in the company, owing to the high price of shares, is likely to be less widely distributed and the fluctuations in value of these high-priced stocks are sudden and of great extent. We shall presently see in greater detail why a stock whose value is secured around par, is more desirable as an investment than a stock upon which the judgment of the market has fixed an enormous premium.

In order that the value of its securities should be prevented from rising to excessive heights, a corporation must be permitted to base its original issues of stock and bonds on the probable earning power of its equipment. Further-

* Panic quotations of May 9th are not included in this estimate.

more, the subsequent issue of securities to absorb existing earnings must also be permitted, if their prices are not to be allowed to rise to excessive heights. If earnings of 10 per cent and dividends of 5 per cent, warrant a price of 100 for an industrial stock, then earnings of 20 per cent and dividends of 10 per cent would warrant a price of perhaps 180; and if the value of the stock is to be kept around par, the number of shares must be increased to keep pace with the increasing earnings; in short, the stock must be "watered" about 100 per cent.

The "watering" of securities may be done in various ways. A stock dividend may be declared. The recent increase in the stock of the General Electric Company is a case in point. Or—and this is the method ordinarily followed in the United States, especially by railway corporations—the stockholders may be allowed to subscribe at par, for a new issue of a security which is selling at a premium. The Illinois Central Railway Company, for example, in October, 1901, authorized the issue of $13,200,000 of new stock to obtain funds. The privilege was given to stockholders of record, of subscribing to the new stock at par, although its market price exceeded 140. The result was to distribute $40 per share to the stockholders, in the premiums on these privileged subscriptions.*

Up to this point, no defense of stock watering has been attempted. It has been shown that a corporation, in the strict sense of the term, is "properly" capitalized only when its securities average their face value in the market. It has been further shown that the objections which have been raised against the issue of securities on the basis of earning power, have little real weight, because they are based upon a confusion of thought in reference to the origin and cause of investment value. It has been finally shown that while the enforcement of a prohibition against

* See also Final Report of Industrial Commission, pp. 405–407.

capitalizing an enterprise in excess of the cost of its equipment, would prevent the issue of worthless securities, it would be unnecessary from the standpoint of safety. We have now to consider certain positive benefits which accrue from the practise popularly known as "watering" securities, meaning by that term to describe the original issue on the basis of earnings, and the increase of stock or bonds to keep pace with increasing profits—in a word, the capitalization of earnings.

To begin with, an emphatic denial must be registered of the opinion, which is widely held, that a manufacturing corporation has, in the long run, anything to gain by concealing its profits in the increase of its capital liabilities. It is true that in many instances the stock or bonds of a company have been increased in order to keep a more or less supposititious "public" in ignorance of its real earnings; or to invoke the aid of the law against proposed reductions of rates of charge, on the ground, already mentioned, that the enforcement of the new tariffs would result in injury to the innocent investor. This has been particularly true of street railway and gas companies, where a uniform charge invites a reduction of rates by act of the Legislature. This is, at best, however, a recourse of doubtful value. If, in the opinion of the court, the public policy demands a reduction of charges, the chances are that the bondholder will have to take the consequences.

A holder of stock in the American Sugar Refining Company could not successfully plead his "vested interest" in opposition to a proposal to remove the differential on refined sugar; nor could a holder of People's Gas or Manhattan Elevated, have much hope of success in a plea against a reduction of his dividends by some act of the municipal legislature. As a rule, the public policy will prevail with the court, and while care will always be taken to allow a fair return to capital, and

while the court will be especially careful not to force a company into bankruptcy by approving a reduction in rates which would make the payment of interest impossible, if it came to an issue between public interest and private property, the latter must give way. Although such appeals for the protection of vested interests have been successfully made, no well-informed investor would pay for the bonds—for example, of a gas company, where the charges were threatened with a reduction by act of the Legislature—a price which would express his conviction that a court would be influenced by some such argument as that described, to declare the reduction unconstitutional. Stock watering is no reliable defense against legislative attack.

The question of the reasonableness of rates, from the point of view of the investor's interest, has been frequently raised in suits brought to restrain the reduction of rates by railroad commissions. The United States Supreme Court, while admitting that the investor's rights should be considered, has gone on record as upholding the interests of the public to be paramount to any other interest. The most forcible expression of this view is contained in the opinion in the Nebraska Maximum Freight Rate case: * "The rights of the public," said the court, "would be ignored, if rates for the transportation of persons or property on a railroad are exacted without reference to the fair value of the property used for the public, or the fair value of the services rendered, but in order simply that the corporation may meet operating expenses, pay the interest on its obligations, and declare a dividend to stockholders."

Furthermore, the argument that a corporation gains public sympathy, for example, in a contest with its employees, because, as a result of a policy of stock water-

* 169 U. S., 466, decided March 7, 1898.

ing, it is able to show that an increase of wages would mean a reduction of dividends, is not well founded. A recent illustration was furnished by the arguments put forward by the anthracite operators to sustain their position in regard to the demands of the miners' union for increased pay. Here, if anywhere, it would seem, the plea of injury to vested interests would be used. President Baer stated publicly that to concede the demands of the miners involved an increase in wages cost to the coal companies of $20,000,000. He might have added, if this estimate were correct, that the demands of the miners threatened with bankruptcy the Reading and the Lehigh Valley.

The miners, on their part, might have retaliated that this capitalization was excessive, because it did not represent money invested, and that they should not be asked to accept a rate of wages which they considered insufficient in order to pay dividends on watered stock. If the capitalization of earnings and the protection of vested interests were seriously considered by the public in a controversy of this character, the method of capitalization which we are discussing would have been turned to account by the contestants.*

We find, however, that, with rare exceptions, these arguments were not used. The operators declared that the men were well paid, and that, if it were not for the agitation of irresponsible outsiders, to whom the operators could not be expected to entrust the management of their business, the mine-workers would be contented. The miners, on their part, based their appeal for public sympathy and support on the claim that they were poorly

* For a detailed discussion of this subject, see article by the writer published in the Annals of the American Academy of Political and Social Science, January, 1903, entitled The Interest of the Investor in the Demands of the Anthracite Miners.

paid and unjustly treated. The capitalization question was ignored by both parties.

It is true that a general feeling exists that the community suffers when a corporation earns more than 6 per cent, and that this prejudice against large corporate earnings is often a source of embarrassment in the disbursement of increasing earnings to stockholders. This is, however, no place to combat this opinion. It is sufficient for our present purpose, to show that no matter how unjust the attitude of the public toward corporate profits may be considered, the acts of hostility which may result from this attitude are not to be warded off by methods of subterfuge and concealment in the manipulation of the capital account. If the capitalization of earnings is to be justified, it must be on other grounds than the benefits of fooling the public.

We find the reasons which justify the capitalization of earnings to be as follows:

(1) By increasing the issue of security to keep pace with increasing earnings, its value is made more stable, and its holdings are more widely distributed.

(2) The corporation is able to obtain money on easier terms.

(3) The value of stock as property to its owners is increased.

The two advantages first mentioned are connected. A stock selling at 600 or 700 is, from its price, unfitted for wide distribution. At the latter price, $70,000 is necessary to buy 100 shares. The average investor, if he has so much money to invest at the date of his quarterly receipts of income, and this is unlikely, will prefer to distribute it among several securities. He will, perhaps, buy some bonds whose security is perfect; or some railroad stock selling at a price too low for its earnings, and which offers a chance for profit; and he may buy some security which

he believes to be undeservedly discredited, and which is certain, in his judgment, to advance. He will, in this way, mix his investments so as to get the largest return for his money. A specimen investment would be about as follows:

Name of Security.	Price.	Yield, per cent.
$2,000 Erie prior lien bonds	98	4.02
$2,000 Atchison Adjustment 4's	94	4.24
20 shares Union Pacific preferred	89	4.49
20 shares Western Union	91	5.4
20 shares United States Steel, preferred	90	7.7

This would absorb $9,240 and would represent an average yield on the money of 5.17 per cent. By such a method, the investor can employ his money to better advantage than if he places all his eggs in one basket. This plan of investment, however, is not possible with a high-priced stock such as Standard Oil. Such stocks are apt to be closely held by a few insiders, and only a small supply is held by the investing and speculative public.

The result of this narrow restriction of holding is to exaggerate the effect of any market rumor, and to cause the price of the stock to fluctuate widely and wildly on small sales. The price of Standard Oil stock, for example, during 1901, advanced from 796 in January, to 840 in May, and then fell to 660 in December, a decline of 180 points in eight months. It is not the writer's purpose to criticize the management of any corporation in allowing their stock to go to a high figure, but to point out that, as a general rule of policy for all corporations, it is better to keep the value of stock below 150 in order that the basis of demand may be broad, and, as a result, that the fluctuations in the stock may be as small as possible—a recognized desideratum in investment securities.

Not only is the public interested in obtaining free

access to the securities of every safe enterprise, but it is highly important to the corporation that its stocks and bonds should be widely distributed and firmly held. The earnings of no corporation are free from the danger of attack. Legislation or competition is always threatening its profits. By enlisting a large number of investors in its support, the directors of a company may make valuable friends of the mammon of unrighteousness, who, when it fails, may fight manfully in its defense.

The strength of the public service corporations of Philadelphia is due, more than to any other single cause, to the wide distribution of their stocks, which have been estimated to be owned by 50,000 residents of the city. Many of these stockholders are influential citizens. Collectively, it is not too much to say, they represent the public opinion of the city. Under these circumstances, it can readily be seen that agitation for lower fares, increased taxation, or compensation for franchises in Philadelphia has little chance of success. When the property owners of this city recently allowed the streets to be taken by the Rapid Transit Company, they were really surrendering them to their own representatives. What they lose as taxpayers, they gain as stockholders; and the gain in many cases far outweighs the loss. Similar advantages can be secured by every large corporation. In proportion as the number of persons who own its securities is enlarged, its hold upon public opinion is strengthened. The danger of competition can often be warded off in the same manner, although a wide distribution of holdings is less important for this purpose than an exchange of stocks among leading interests, as practised in recent years by the railroads.

The second advantage secured by the full capitalization of earnings is the fact that a stock which sells around par has generally a larger market than a stock which sells

at a high premium. In a former chapter, it was shown that high-priced securities were unpopular with the average speculator because of the large amount of money required to carry them, and the smaller opportunity for profit from fluctuations. This speculative demand is important. Indeed, at intervals, it largely overshadows the investment demand. Every corporation having stock for sale, wishes to get the highest price obtainable. To this end, the speculative demand should be cultivated. As for the investment demand, the same principle holds in this case also. The principle determining the relative demand for high- and low-priced securities is the same as that which regulates the price of real property. The marketability of city dwellings increases with their decrease in price. A hundred buyers are in the market for a $3,500 dwelling, for one who will buy a costly mansion. The result is that, in relation to their cost, the profit on low-priced dwelling-houses is much greater than on palaces. If a capitalist wishes to turn over $500,000 in two years on this kind of real estate, he will seldom spend the money on less than 1,000 dwellings. He would not build two houses for $250,000 each, for these could probably not be sold for half their cost within the time mentioned.

In a restricted sense, this principle of real-estate valuation holds true of securities. Stocks which pay high dividends, in the absence of expected advantages to the holder from privileged subscriptions or mergers, as a rule sell at lower prices in relation to their dividends than the lower-priced stocks. We find few illustrations of this proposition in the United States, because the majority of active stocks in this country pay moderate dividends and sell at low prices; most of them, in fact, below par. Moreover, the returns to the investor on the majority of railroad stocks which pay high dividends—such a

stock, for example, as that of the Boston and Albany or the Boston and Providence—furnish no basis of comparison with the yield on lower-priced stocks, because these roads are generally leased to other corporations. We have, it is true, a few examples of high-priced stocks which are active, the Standard Oil being the most conspicuous, and these bear out the opinion just expressed. In 1901, for example, the yield on the purchase of Standard Oil stock was 6.3 per cent, an unusually high return, as compared with lower-priced stocks of equal security.

More conclusive evidence is furnished by the German Industrial companies whose capitalization is narrowly limited by law. Most of the German railroads are the property of the state, and this fact operates to increase the demand for industrial securities. The investment rate of interest on bonds in Germany is as low as that which prevails in the United States. Under these circumstances, we should expect to see the shares of long-established German companies selling at least on a 5-per-cent basis. As a result of their small capital, however, many of these companies pay enormous dividends, in many cases 10, 15, and 20 per cent having been disbursed to shareholders for a long period, and in consequence of these large dividends, they sell at high premiums. These high values, however, represent a larger return to the investor than the yield of similar stocks in the United States. The majority of established industrials in Germany yield more than 5 per cent, and returns of more than 6 per cent are by no means uncommon.*

It would be improper to explain this large yield solely by reference to the large dividends on these shares. The

* The reader who is interested in this subject of German securities is referred to Salings Börsen Jahrbuch, published by the Verlag für Börsen und Finanzliteratur A-G, Leipzig.

abundance of safe industrial investments in Germany, and the fact that the investment demand is much smaller than that of the United States, has doubtless much influence in counterbalancing the effect of the absence of railroad investments upon the supply of good securities; but it is nevertheless true that these large returns to the investor show the undesirability, from the standpoint of the corporation which has stock to sell, of placing that stock on a level where it can only be purchased by a small number of investors.

If a high-priced stock is undesirable for the corporation, it is equally so for the stockholder. If he wishes at any time to turn such property into money, he can generally obtain more for 100 shares of a stock which pays a 5-per-cent dividend and sells at par than for 50 shares on which the dividend is 10 per cent and whose price is 180. For the same reason, a stock on which moderate dividends are paid has a larger value as collateral, both because the aggregate price of 100 shares is greater than the 50 shares of a 10-per-cent stock, and also because the larger fluctuations of an active high-priced stock force the banker to require a larger margin for his loan. The interest of the corporation and of its stockholders, especially of new corporations or of those which are rapidly enlarging their capital account, demands that the value of shares should not, as a result of large dividends, sell at prices too high for the largest demand. In other words, the conclusion of our investigation is that the interests of the corporation, the stockholder, and the public—for the public is also benefited by a wide distribution of stable investments—unite to indorse the capitalization of earnings. The object of a corporation management should be the maintenance of a moderate and stable rate of return on stocks. Instead of the much-abused practise of stock "watering" being danger-

ous to the public interest, it is, when properly conducted, of great general benefit.*

We have now to consider the working out of this principle in the capitalization of the trusts, which furnish examples of the original capitalization of prospective earnings.

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* The converse of the capitalization of increased earnings is found in the capitalization of decreased earnings by a reduction in the par of the capital liabilities through a reorganization. This subject will not be treated in the present volume, but it is proper to remark in this place, that several industrial corporations whose earnings have proved inadequate to sustain these earnings have reduced the amount of their outstanding stock.

CHAPTER XVII

THE CAPITALIZATION OF THE TRUSTS

The United States Steel Corporation

A NEW corporation, representing a new form of enterprise, whose shares are to be thrown open to public subscription, must, in the nature of things, be overcapitalized if its flotation is to succeed. We have seen in a former chapter that investors would not buy the stock of the trusts until these corporations had justified their right to exist; and, therefore, that their stock must be originally sold to speculators. We have further seen that in order to make these securities attractive to speculators, they must be offered at low prices. So long as these low prices continue—and until the investor has satisfied himself as to the merits of the enterprise, they will continue—the corporation may be said to be overcapitalized. On the face of its bonds and its stock certificates, a so-called liability is assumed, of $50,000,000. The stock-ticker says that the real worth of the corporation's assets is only $30,000,000. This condition we call overcapitalization.

If the profits of the new company equal the representations made concerning them, the amount of overcapitalization, i. e., the difference between the par and market value of its shares, will diminish. Most prosperous corporations, during the early days of their existence, have

been overcapitalized, but their condition was generally one of decreasing overcapitalization. Overcapitalization is in itself no evil, providing its amount tends to diminish by the increase in the value of its certificates. The value of these securities may be raised to par by the investment of profits in increased earning power. By the accumulation of a surplus reserve, which insures profits adequate to interest and the current rate of dividends on the stock outstanding, the company will gradually establish itself in the confidence of the investor, and the market value of its capital certificates will be increased.

This prudent policy was forbidden the directors of the trusts by the promises of dividends made to the stockholders; by the existence of cumulative preferred stock on which dividends must be eventually paid before the common stockholder receives any return, and by the necessity of realizing underwriters' and promoters' profits in the stock-market. The disbursement of these profits, in some cases, interfered with the advance in the value of the trust stocks by placing fixed charges ahead of dividends. The money needed for working capital and for improvements could not be taken from the business. It must be borrowed. The result is that unless the expected profits of the trusts are not only realized but maintained, the value of these stocks will, at the first season of depression, still further decline, and the overcapitalization of these companies will increase. Increasing overcapitalization, appearing in a decline in security prices, is rightly considered to be a serious danger to the stability of business conditions, as well as representing the losses of individual holders.

On the other hand, if the expected advantages of consolidation are realized, and if profits are maintained for a long period of years, the investor will understand this phenomenon to prove that his long-established opinions con-

cerning the periodical fluctuations of business profits must be revised. If the profits of the trusts are maintained without any attempt to accumulate the amount of surplus-earning power which experience has shown to be necessary, then the conclusion is plain that the experience of the past is no guide to the future, that the era of consolidation is to be an era of stable prices and profits, and that the necessity for cautious financial management has passed away.

This assumption has been generally made. Industrial depression, it is stated—meaning by this term the decrease of profits—is caused by competition. The organization of the trusts has eliminated competition. Therefore, the organization of the trusts has ushered in an era of stable earnings. The inference is that those corporations which are to enjoy the benefits of the changed conditions need not order their affairs with the same discretion as was demanded under conditions of competition. While monopoly may be impossible, the concentration of a majority of the concerns in each industry into the hands of large companies, it is held, will prevent a repetition of the trade wars of the past.

We have now to examine the basis of this assumption, by setting forth, in the experience of the greatest trust of all, the United States Steel Corporation, the nature of the task which the trusts have set themselves. From a critical study of the capitalization of this company, starting from the hypothesis that industrial history is to be repeated, we may clear the ground for a study of the stability of trust securities as revealed by the experience of the past four years.

The surplus earnings of the United States Steel Corporation for the first year of its existence exceeded $24,000,000. The claim is made that the surplus for the second year, above all disbursements, will be more than

$50,000,000. Thus far the enterprise is more than fulfilling the predictions of its promoters, that dividends could be maintained on both preferred and common stock. These large earnings are the result of a combination of productive advantages with an extraordinary demand for iron and steel. These productive advantages have been so often enumerated and described that the briefest survey, by way of introduction to the present discussion, will suffice.

The United States Steel Corporation controls 80 per cent of the supply of iron ore at the head of Lake Superior. It owns practically the whole of that portion of the Connellsville coking coal-field not yet exhausted. It owns the boats and railroads by means of which the crude materials of steel production are brought together. The plants of the Corporation are located at the points of largest present advantage, where materials can be most economically assembled, and from which markets can be most easily reached. These plants include approximately 65 per cent of the productive capacity of the United States, taking the total output of all forms of steel products as the basis of estimate. The policy of the company is directed by the most able men in the steel industry, and its financial support includes the strongest houses in the United States. The result of these advantages is production and distribution at a lower cost than has ever been reached by any company engaged in the manufacture of steel. Minimum expenses of production combine with heavy demands for product and high selling prices, to produce the huge sum of profits which has been mentioned, and out of which liberal dividends have been paid.

These profits, however, although enormous, are none too large for the requirements of investment security. Average net earnings of $125,000,000—and this result will probably be achieved in 1901 and 1902—give an

annual surplus of $40,000,000, or 3 per cent on the total capitalization of the company. At this rate, in ten years, providing that conditions of capital and income remained unchanged, a surplus of 30 per cent will have been accumulated, and the common stock may be entitled to rank as an investment security. A more conservative management would refuse dividends on the common stock until a considerable surplus had been accumulated; but the United States Steel Corporation was definitely committed from the start, not only by the announcement of its prospectus, but by the practise of most of its constituent companies, to a policy of liberal disbursement. Having once been begun, this policy can be abandoned only at a sacrifice of security values which would entail heavy losses upon the stockholders and injure the reputation of the principals.

The necessity for the payment of dividends arises, also, from the existence of the cumulative provision which appears in the contract with the holder of the preferred stock. If the stock of the United States Steel Corporation were all of one issue, or if the cumulative feature did not attach to the preferred stock dividends, no dividends need have been paid for the last two years, and nearly $200,000,000 could have been added to surplus reserve. Given another year as profitable as 1902 has been, and the corporation would have accumulated a reserve fund of approximately 20 per cent. The cumulative provision, however, enforces the necessity of paying 7-per-cent on the preferred stock; and this payment requires a yearly appropriation out of earnings of $35,721,987. Failing in the payment of any part of this sum, the deficit remains as a preferred claim against earnings, which must be satisfied before the resumption of dividends on the common stock. In justice to the holder of common stock, therefore, preferred dividends, when earned, must be paid.

Payment of dividends on one class of securities, moreover, is a presumption in favor of disbursements to the junior issue; and finally, as before remarked, the steel combine is definitely committed to a policy of dividend payment. In considering the capitalization of the steel trust, therefore, we inquire into the ability of the steel trust to pay dividends on its present capital. If these dividends are maintained, the preferred stock, arguing from the yield of similar securities, will eventually rise to 120, and the common to 75 or 80. Under these circumstances, the capitalization of the steel trust would not be considered excessive. Will these dividends be maintained?

We start from a basis of first charges of $68,490,170, divided as follows: Sinking-funds and maintenance, $17,568,183; interest on bonds, $15,200,000; dividends on preferred stock, $35,721,987. If the reputation and policy of the company demand the payment of dividends on the common stock as a condition of financial stability, the total requirements are increased to $88,829,978, which must be earned before any surplus can be accumulated. Do the past history and present circumstances of the iron and steel trade, and, in particular, the situation of the United States Steel Corporation in reference to cost of production and market control, warrant the conclusion that this sum can be provided, and at the same time an adequate surplus reserve accumulated?

In a recent paper * entitled The Integration of Industry in the United States, Dr. W. F. Willoughby showed the existence of a tendency in the industrial world toward the uniting of all the factors of production in particular lines into single companies, each of which owns or controls the source of its own supply of materials, and markets its product in the finished form. Dr. Willoughby found the

* Quarterly Journal of Economics, November, 1901.

best illustration of this tendency in the situation of the United States Steel Corporation; but he showed that the movement is already quite general, and is apparently destined to a much further extension. The advantages of this new system of production were shown to be considerable, the most important advantages being independence of fluctuations in the prices of materials and transportation, and the obtaining of all materials at or near the cost of production without deduction for intermediate profits. In the case of the United States Steel Corporation, moreover, it was pointed out that the greater part of its output was marketed in the form of products far removed from the unwrought steel billet or bloom. In other words, the major portion of the earnings of the corporation represents the combined profits of a long series of productive factors—the mine, the coke plant, the railroad and steamship, the blast furnace, the Bessemer converter, the slabbing-mill and the plate-mill—all converging and uniting in the earnings from the sale of rails, tubes, tin-plate, cotton ties, and structural material.

These gigantic profits and values, under the old-time system, before the steel industry became integrated, would have been divided among at least six classes of producers, each of whom would have in turn contributed to the earnings of its predecessor, while it levied tribute upon the next in succession; and would have been struggling to improve its position at the expense of its own buyers and sellers, with the result of confusion of contracts and uncertainty of prices. The mine-owner could not calculate on a fixed rate of transportation; the furnace man had no certainty, beyond the limits of a single season's requirements, that he would not be mulcted in the price of ore and coke; the bridge manufacturer anxiously scanned the market prices of steel. Everywhere was ignorance, distrust, and friction.

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The most prominent characteristic of the interdependent system of production was the element of fluctuating costs. Each producer in order, after a brief season of prosperity, would find his cost of production raised by the producer just before him. A high price of pig iron in the fall meant a high price of iron ore in the spring; and steel producers who had seen their customers make large profits on their purchases of low-priced billets and sheets, hastened to equalize matters with these customers as soon as their contract commitments had been filled. As a result, no one member of the productive series was able to take full advantage of the opportunity for profits which a large demand always presents. The producer who stood nearest the consumer was perhaps in the most favorable position; but even here the manufacturer of hardware and the large buyer of materials, at the beginning of an advance of prices, eagerly contracted ahead; and the producer of tubes or wire was usually kept busy filling these low-priced contracts, until the rising tide of preliminary cost destroyed his hopes of the larger profits to which the high prices of his products would seem to entitle him.

At the same time that the costs of the steel industry were subject to such wide variations, the aggregate expenses of its different members suffered but slight changes in comparison. For example, the miner in the Connellsville region, during the depression in the coke trade from 1893 to 1898, received $0.928 for mining 100 bushels of coal. In 1900 he received $1.25. The wages of the laborers around the ovens increased less than the wages of the miner. The depreciation and sinking-fund charges remained the same. The total cost of coke-making between 1897 and 1900 did not increase to exceed 25 per cent per ton of coke produced, but the price of coke at the oven rose from $1.23 in 1895 to $2.70 in 1900, or

119.5 per cent.* The same can be said of the cost of ore and limestone, and also of pig iron and steel billets. The variation of the labor and capital cost of production has always been much smaller than the changes in market prices, because these latter represent the changes of general demand. Price is a social fact, influenced by a number of outside circumstances, constantly changing in their relation and in the degree of their respective influence. The expense of production, on the other hand, is a technical fact. It measures the resistance of nature to man's efforts, and the slow fluctuations of wages. Expenses of production, therefore, as compared with market prices, fluctuate within narrow limits, although their general tendency is always downward.

It was from this situation of unstable costs, that the "integrations" in steel production, of which the United States Steel Corporation is the foremost example, have delivered the trade; and in the freedom from the vexatious checks of advancing costs, lies the explanation of the imposing profits upon which the huge capitalization of the company has been based, and to which that capitalization looks for its justification. The products of the steel trust to-day are produced at ultimate and fundamental cost—a cost which contains hardly any element of profit from the beginning of the series to the end, and which represents only the bare expenses of producing and transporting the various materials—ore, coke, iron, steel billets, steel plates, which antecede the final product.† These expenses of production, owing to the rapid progress of improvement in recent years in every stage of the process, are probably the lowest on record. The final products

* From information supplied by Mr. H. P. Snyder, editor of the Connellsville Courier.

† No matter what system of accounting has been adopted between the constituent companies, the final result would be as described.

are sold at high prices, higher than for ten years past, and in quantities which have never before been approached. The profits of the steel trust represent the total earnings at the time of its greatest prosperity of a company producing 65 per cent of the iron and steel industry of the United States, the combined profits of the members of a complete productive process. These profits, if continued for ten years, in spite of the heavy drain of dividend payment, will permit the accumulation of a reserve of surplus earnings probably sufficient in amount to guarantee the stability of both common and preferred stock.

The question at once arises, Will these profits continue? This question can be discussed from two standpoints. We can assume that the course of prices and earnings in the steel trade will follow in the future, the direction of their past history, or we can accept the claim, so often made, that a new factor of potent influence has entered to steady the industrial situation, and maintain the stability of industry; that the control of the supply possessed by the United States Steel Corporation will operate to steady the market, and will prevent prices from falling to the same extent as in past years. It is from the first point of view, that the present discussion proceeds. The writer proposes to examine the situation of the United States Steel Corporation, on the hypothesis that a period of industrial depression, such as has invariably succeeded a period of industrial prosperity, will carry to a low level the present prices and profits of the steel trade. An examination of the situation from the standpoint of past experience is certainly warranted, if only by the necessity of clearing the ground for the examination of new factors, which, it is claimed, the industrial consolidations of the past four years have created.

The history of iron and steel prices is a record of fluctuations more frequent and extensive than those which

have marked the course of any other class of commodities. The following table gives on four dates, covering a period of twenty years, the prices of the more important members of the group of iron and steel products:

Highest and Lowest Average Prices of Iron and Steel, 1880–'99

	1880.	1885.	1890.	1894.	1899.
No. 1 foundry pig at Philadelphia..	$28.50	$18.00	$18.40	$12.66	$19.36
Steel rails at mills in Pennsylvania.	67.50	28.50	31.75	24.00	28.12
Steel billets at mills at Pittsburg (1886, $31.75).....	.....	.....	30.32	16.58	31.12
Wire nails small size, at Anderson, Ind.	10.40	5.91	4.60	3.81	3.28

Taking the fluctuations of pig iron as the subject of comment, we find that from 1880 to 1885, the price declined 36.8 per cent, and from 1890 to 1894, 31.1 per cent, rising from 1894 to 1899, 52.9 per cent. The fluctuations in the prices of the more advanced steel products were equally great. The demand for iron and steel represents, perhaps more nearly than the demand for any other product, the periodic fluctuations in business activity.

The course of production has tended to correspond with the range of prices. As a rule, however, although the production of iron and steel has immediately decreased in response to a fall of prices, the decline has been temporary; and within a short time, usually not exceeding a year, while prices still remain low, production has once more increased, although not at the same rate as before the decline in prices. The industries of the country having adjusted themselves to the lower level of prices, a renewed demand for iron and steel is met by an increasing supply, and normal conditions continue until the next explosion of industrial speculation sends prices up again.

This sustained production of iron and steel on the new level of prices has been hitherto made possible by a

readjustment of costs. The materials of every branch of the industry having fallen in price, expenses are correspondingly reduced, and a decrease in labor cost is facilitated by a decline in the cost of living. Decreasing cost of production enables the operation of works at a profit, although, without such a reduction in cost, the new price level would in most cases convert profits into losses, and cause a general suspension in the industries thus circumstanced. To put the matter concretely, unless the price of pig iron declined along with the price of steel, the steel-maker would be compelled to operate his plant at a loss. In this decline in the prices of his materials, the steel-maker found partial compensation both for the decrease in his profits, resulting from the former advance in costs, and for the present decline of his selling prices.

Just as the members of the productive series, beginning with the mine and the transportation company, by advancing their charges, had successively raised the expenses of production of the later stages of the process, so now, beginning with the manufacturer of finished materials and reversing the order, prices and costs successively decline. The wire-mill pays less for rods; the rod-mill, for billets; the steel-maker, for pig-iron, until the weakness in demand from the final consumer has passed, from one stage to the other, back to the railroad, the boat, and the mine. The result of the interdependence of industry in a time of falling prices was, therefore, a compensating decline of the expenses of production, and a reduction of profits relatively much smaller than would have been the case had costs of production remained comparatively stable from the beginning. While the aggregate profits of an interdependent company over an extended period, compared with those of an integrated company, are much smaller, they are, for the foregoing

reasons, more evenly distributed, and exhibit in their movements a smaller margin of variation.

The significance of this principle of profit variation as applied to determine the security of the steel stocks is as follows: The United States Steel Corporation is an integrated company. Its expense of production contain but few elements of profit, and, compared with those of the *régime* which it superseded, are relatively stable. Its aggregate profits are, therefore, much larger; but on the other hand, they are more unevenly distributed—that is to say, the margin between the high and low points of the profit curve is much greater than if the corporation was obliged to purchase its supplies from other producers. In capitalizing the profits of such an integrated concern, on the basis of past experience, the amount of stocks and bonds that can safely be issued, should not absorb the maximum earnings of the new company, but should preferably represent the average of high and low profits; or, even more prudently, should be fixed at a point where the requirements of interest, maintenance, and dividends should not absorb more than the minimum earnings.

If both of these rules are disregarded, and the maximum earnings of an integrated company are fully capitalized, especially if the capitalization contains a large proportion of interest-bearing obligations, its financial standing is likely to be impaired by the first decline of prices. A conservative policy is more necessary in the capitalization of an integrated, than of a non-integrated company, because, in the case of a non-integrated business, the proportionate decline in profits, as a result of a fall in prices, is much less than where little compensation for falling prices is afforded by decreasing cost of materials. It is, therefore, impossible to escape the conclusion that the stocks of the United States Steel Corporation, because its capitalization is based upon the maxi-

mum profits of an integrated company at a time when the margin between costs and prices was the widest, and also because that capitalization contains a considerable element of bonded debt, will be in danger of serious depreciation if prices should follow the course of past years.

It may be of interest to follow out the working of this principle of profit variation in a concrete case. The writer was recently privileged to examine a confidential report on the financial history of a prominent blast furnace company, which presented a detailed record of costs, selling prices, production, and earnings for a series of years. This company contracted for all its materials. The management, equipment, economy, and efficiency of operation of this company have always been of the highest order. In fact, it is generally recognized as one of the best of the independent furnace companies in the State in which it is located. The main facts of its financial history are presented in the following table:

Year.	Price of iron per ton.	Cost of production.	Profit per ton.	Net earnings.*
1890	$15.74	$13.70	$2.04	$67,928.29
1891	14.57	13.33	1.24	39,072.96
1892	13.63	12.77	.86	18,244.77
1893	12.31	11.31	1.00	25,787.98
1894	10.58	9.86	.72	13,714.77
1895	10.74	9.71	1.03	42,971.86
1896	11.29	10.48	.81	20,815.94
1897	10.40	9.59	.81	33,150.57
1898	9.79	9.03	.76	32,319.51

The proposition which has been laid down regarding the tendency of the costs of a non-integrated company to vary with its profits is substantiated by this record. Compare, for example, the variation in the selling price of

* From the gross profits of each year are deducted taxes, interest, discounts, commissions, and depreciation before the net earnings are ascertained.

pig iron from 1890 to 1894 with the change in the cost of production during the same period. A fall in price of $5.16 is largely offset by a decline in cost of $3.84, most of which was due to a fall in the price of ore and coke;* and, as a result of this decline in materials, a profit is still earned. Had it not been for this fall in the price of ore and coke, the company would have sustained a heavy loss after 1893; for the selling price of pig iron from 1894 to 1898 was less than the cost of production in 1890.

Let us now suppose that the proprietors of this company in 1890, the year of highest profits, corresponding to the year 1901, had decided to capitalize their enterprise on the same basis as that on which the capitalization of the United States Steel Corporation has been issued; namely: 5-per-cent bonds, 12.1 per cent of the total; 7-per-cent cumulative preferred stock, 28.5 per cent; and common stock, 16.2 per cent. Let us further assume that, just as the steel trust has done, the new company decided to set aside 14 per cent of net earnings for sinking-fund and maintenance charge, or $9,509.96 out of net earnings of $67,928.29, as well as a surplus reserve equal to 28.9 per cent of net earnings, or $19,835.07, before capitalizing any part of their income. The promoters of the iron company, pursuing the same policy of maintenance, sinking-fund, and surplus reserve charges as that adopted by the promoters of the United States Steel Corporation, would have had remaining $33,150.01 of the net earnings of 1890 upon which to base their issues of stocks and bonds.

On this relatively conservative basis, and apportioning the available net earnings of the ——— Iron Company among the three classes of securities in the same proportions as the steel trust has apportioned its earnings, we

* From 1890 to 1894 the price of No. 1 Bessemer ore delivered at lower lake ports declined from $6.50 to $3.35, and the price of Connellsville coke at the ovens from $2 to $1.

have the following capitalization in 1890, corresponding to the capitalization of the United States Steel Corporation in 1901, and bearing the same relation to the net earnings of that company:

Class of Security.	Principal.	Interest or dividends.
7 per cent cumulative preferred stock....	$276,454.51	$19,359.56
4 per cent common stock.....	275,109.50	11,004.38
5 per cent bonds.....	164,386.40	8,219.32
	$715,950.41	$38,583.26

We now have our company arranged on the same basis, in relation to the surplus reservation out of its earnings of 1890, and the capitalization of the different classes of securities, as the United States Steel Corporation in 1901. It will be instructive to follow the fortunes of our new company through the nine years succeeding its organization; and this is done in the following tables, which give (1) net earnings, (2) requirements for interest, maintenance, and dividends, and (3) surplus account, from 1890 to 1898:

Year.	I. Net earnings.	II. Fixed charges interest and depreciation.	III. Fixed charges +7 per cent on preferred stock.	IV. (III) + 4 per cent on common stock.	V. Surplus (+) or deficit (−) over total requirements.
1890...	$67,928.29	$17,729.28	$37,088.84	$48,093.22	+19,835.07
1891...	39,072.96	"	"	"	−9,020.26
1892...	18,244.77	"	"	"	−29,848.45
1893...	25,787.98	"	"	"	−22,305.24
1894...	13,714.77	"	"	"	−34,378.45
1895...	42,971.86	....	....	....	−5,121.36
1896...	20,815.94	"	"	"	−27,277.28
1897...	33,150.57	"	"	"	−14,942.65
1898...	32,319.51	"	"	"	−15,773.71

We have here represented the financial history of a company capitalized on the same basis as the United

States Steel Corporation, during a period of low prices. Let us go over the results appearing in column "V," applying them to the position of the different securities, and assuming that the corporation is managed with an eye to safety. In 1890, after meeting all fixed charges, and paying dividends on both preferred and common stock, a handsome surplus would have remained on the year's operations. In 1891, no common stock dividend would have been paid, and $1,984.12 would have been added to reserve. In 1892, no dividends could safely be paid on the preferred stock, because, after meeting fixed charges, only $515.49 remained out of the net earnings of the year. This would be added to the reserve, bringing that item up to $22,334.68. In 1892, since the preferred stocks are cumulative, an unpaid dividend of 7 per cent is accumulated, which must be paid before dividends are resumed on the common stock. In 1893, to continue our examination, $8,058.70 was earned on the preferred stock. In view of the fact that the surplus reserve of the company, which now stands, as above noted, at $22,334.68, is only 3.1 per cent of the total capitalization, a prudent management—such, for example, as the present governing body of the United States Steel Corporation—would refuse to pay out this excess of net earnings over fixed charges, and would carry the balance to surplus, bringing that account up to $30,393.38. The consequence of this decision would have been to add another 7 per cent to the accumulation of unpaid preferred dividends already standing against the common stock.

In 1894 came the period of low prices, which would have justified the conservative decision of the preceding year. Net earnings would have fallen below fixed charges, and $4,014.51 would have been drawn from the reserve to pay interest. Another passed dividend on the preferred would have accumulated 21 per cent against the common

stock. The result of the operations of the next four years would have been a surplus of $58,340.76 over the total fixed charges for this period. Out of this sum, 7 per cent could have been safely paid on the preferred stock, and the balance, $38,988.95, carried to surplus reserve, increasing that account to $65,367.82, which is 9.1 per cent on the capitalization of the company—a respectable showing, although still considerably less than the highest standard of investment security would require.

By 1898, however, the accumulation of back dividends against the common stock would have amounted to 49 per cent on the preferred stock; and the junior security, therefore, would have only a nominal value, not merely in view of the existence of the back claim accumulating for eight years upon future earnings, but because of the fact that no dividends had been paid for an extended period. The value of the preferred stock would have probably settled around 40, and the bonds alone would rank as an investment security. The conclusion is plain that the basis of capitalization of the United States Steel Corporation, if the experience of the ——— Iron Company is any criterion, and if prices follow the course of past years, is dangerously insecure, and that both classes of stocks are at all times highly speculative in character.

The financial analogy which has been drawn, however, is not yet complete. The profits upon which it is based, are those of a non-integrated company that found a large measure of compensation for the decline in the price of its product in the reduced cost of its materials. The high and low points of the profit curve of the ——— Iron Company are, therefore, much less widely separated than would have been the case had the company produced its own materials instead of buying them from other producers. In order to make an exact parallel with the present situation of the United States

Steel Corporation, it is necessary to reestimate the earnings of the company under examination on the basis of a cost price for materials. In making this estimate, the average cost of materials to the company from 1894 to 1898, is taken as an approximation of the total expenses of producing these materials from 1890 to 1893. This estimate is probably somewhat under the facts, but, as will presently appear, is the more warranted for that reason.

Taking materials at producers' cost, just as the United States Steel Corporation receives them, the profits of the ——— Iron Company, in 1890, would have been $228,039.25 instead of $67,928.29, the amount actually realized; and the capitalization of the company, arranging it as before on the basis of the same allowance of surplus and maintenance charges, and with the same apportionment of earnings to the different classes of securities as the method employed in the capitalization of the United States Steel Corporation, is as follows:

Income

Total net earnings	$228,039.25
Reserved for surplus	65,903.34
Reserved for sinking-fund and maintenance	31,925.49
Available for interest and dividends	130,210.42

Capital and Capital Requirements

Class of Security.	Principal.	Interest and dividend requirements.
5 per cent bonds	$551,854.80	$27,592.74
7 per cent cumulative preferred stock	942,354.05	65,991.18
4 per cent common stock	923,558.75	36,942.74
Total	$2,417,767.60	$130,526.66

Here is a capitalization, based upon the earnings of an integrated company for 1890, and apparently warranted by those earnings, nearly four times as great as

the capitalization which could be based upon the earnings of a non-integrated company after allowing the same proportion of reserve. The enormous preponderance in the earnings of the modern system of production represented by the steel trust, compared with the old-fashioned method, is at once apparent. But the danger of a full capitalization of these larger earnings is equally evident. For now we are to have but little compensation for declining prices in declining costs. Let us admit a decline in producers' cost from 1890 to 1894, of 20 per cent, which is certainly well above the reduction that actually took place, and see how our company stands the strain. The statement of earnings, fixed charges, dividend requirements, and surplus account—taking materials at producers' cost—would have been as follows:

Year.	Net earnings.	Fixed charges.	Fixed charges +7 per cent on preferred stock.	(III) + 4 per cent on common stock.	Surplus (+) or deficit (−) over total requirements.
1890..	$228,039.25	$59,518.23	$125,509.41	$162,451.76	+$65,587.49
1894..	21,488.46	59,518.23	125,509.41	162,451.76	−140,963.30

In contrast with a surplus over all requirements of $65,587.49 in 1890, appears a deficit of $140,963.30 below fixed charges in 1894; and from this time on, fixed charges would have more than absorbed all available revenue, leaving nothing for surplus and preferred stock, and considerably less than nothing for the common stock, which would have been buried under a mountain of preferred accumulations. In other words, before the period under examination had been half concluded, the property of our company would have been in the hands of the bondholders. Such would have been the result of putting the ——— Iron Company in control of the sources of its supplies of material in 1890, and of capitalizing the larger earnings thence resulting on the same

basis as that on which the present capitalization of the United States Steel Corporation is based.

The lesson of this analogy, and its application to the situation of the United States Steel Corporation is by no means obscure. It has already been plainly stated, but will bear repetition. The steel trust has capitalized to the full limit of present safety the largest earnings in the history of the steel trade. The surplus which will remain out of the earnings of the first two years of its operation is no more than sufficient to meet the requirements of investment security. If these earnings continue for ten years, as has been pointed out, a reserve of approximately 30 per cent will have been accumulated, and the corporation can begin to plume itself on its investment standing. If prices and earnings in the steel trade, however, follow the same course as in past years, those earnings will suffer a decline more astonishing than their advance has been phenomenal.

The proposition can not be too often emphasized that integrated industry means more stable cost of production, and, therefore, unless an equal stability can be imparted to the prices of sale and the volume of output, a wider zone of profit variation. With integrated industry, costs do not rise with prices; and profits, therefore, increase with greater rapidity than when other profits are deducted from them. But, on the other hand, if the turn comes and the tide of prosperity ebbs, since the expenses of production have not risen with the advance, neither do they decline with the depression; and prices fall with slight compensation from decreasing costs. The capitalization of the steel trust represents the top of the wave of prosperity. It is not difficult to forecast the value of that capitalization if the wave should recede.

It is not the writer's purpose to venture upon a prediction of disaster to the Steel Corporation. If steel

prices and the earnings of the steel trade decline, as they have declined in the past, there can be no question that the value of both issues of its capital stock will be seriously impaired, with a probability that title to its properties will pass to the holders of its mortgage bonds. This is the teaching of experience. Steel has always been, in the picturesque phrase of Mr. Carnegie, either a "king or a pauper." And poverty in the steel trade means the extinction of the Steel Trust. It is, however, legitimate to urge that industrial conditions, as a result of the consolidations of recent years, are now so stable that the earnings of the steel corporation can be maintained.

We have now set forth the nature of the problem which confronts the trusts, and have shown the result in one important instance if they should fail to solve it. Our study of capitalization will not be complete without some inquiry into the success which has up to this time attended their efforts to fulfil the promises of their promoters.

CHAPTER XVIII

THE DECLINE IN INDUSTRIAL SHARES

The preceding chapter has set forth the difficulty of the task which the directors of the trusts have before them in attempting to realize the promises made at the time their stocks were sold to the speculators. They have undertaken to raise the value of an immense mass of securities to an investment level by paying large dividends, and convincing the investor that these dividends can be maintained. To this end, the lessons of the past, which show the necessity of prudent financial management, have been thrown to the winds. The sponsors of the trusts have assumed the success of the industrial experiment which they are trying. If their expectations are realized, they have accomplished an industrial revolution. If the event proves that they were mistaken, the trust experiment must take its place among the most conspicuous failures of speculative promotion.

The present time is by no means the best for the investigation of the strength of the trust position. The prosperity of the United States in recent years has been so great that, with ordinary management, almost any enterprise could succeed. The trusts may have achieved success under these favorable conditions, and yet prove unseaworthy in a time of storm. On the other hand, however, if the result of our inquiry shall be unfavorable to

the trusts, this adverse conclusion will be strengthened by the conditions under which the inquiry was conducted. If the trusts have not succeeded during a period when the conditions were so favorable to success, they will assuredly fail when prosperity recedes. "If in the land of peace, wherein thou trustedst, they wearied thee, then how wilt thou do in the swelling of Jordan?"

The success of a corporation is registered in the price of its securities. Whether the demands for its stocks and bonds be from the speculator or the investor, the ascertained fact of increasing earnings, especially if the increase be maintained for several years, will be reflected in rising quotations. On the other hand, if the earnings fail to advance, as was expected at the time of the flotation, or if large apparent earnings are secured by improper methods, such as the accumulation of unfunded debt, or the neglect of the depreciation account, the stock-market observers may be trusted to discover the existence of these bear arguments, and to sell the stock down long before the outsider is ready to give up hope. A sustained advance or decline in the prices of its securities is the best evidence of the financial condition of a corporation.

The materials of our study are presented in tables on pages 338 and 339, which contain the following facts concerning twenty-one industrial stocks listed on the New York Stock Exchange since 1898: (1) The amount of preferred and common stock outstanding at the end of the first year of organization; (2) the price of each issue at the date of listing; (3) the highest prices obtained since that date; and (4) the present prices.

On the face of the returns, whatever service the trust movement may have rendered in preventing competition and thus making profits more stable, so far as the 21 companies, the prices of whose shares have been examined, are concerned, it has inflicted upon the community a loss

Table of Stock Prices

Name of Company.	Date of organization.	Common stock.*	Preferred stock.*	Price in mo. of listing.	Highest subsequent price.	Price Dec., 1902.
Amalgamated Copper (common).	1899†	$75,000,000	.....	96½	June, 1901, 130	59 3/16
American Car and Foundry.....	1899	29,090,000	$29,090,000			
Common	.....	.....	.....	20 5/16	Oct., 1902, 37⅝	34
Preferred.....	.....	.....	.....	64	Oct., 1902, 93⅜	88¾
American Agricultural Chemical	1901	16,533,000	17,044,900			
Common	.....	.....	.....	31¼	Feb., 1901, 32½	19½
Preferred.....	.....	.....	.....	84⅞	Aug., 1901, 89¾	80
American Ice.....	1899	22,939,100	12,440,400			
Common	.....	.....	.....	39¾	Apr., 1900, 48½	10 5/16
Preferred.....	.....	.....	.....	83½	Oct., 1899, 80¼	39
American Linseed Oil.....	1899	14,250,000	14,250,000			
Common	.....	.....	.....	9⅜	July, 1901, 30⅛	15
Preferred.....	.....	.....	.....	45	July, 1901, 66	40½
American Locomotive.....	1901	25,000,000	24,100,000			
Common	.....	.....	.....	28¾	Apr., 1902, 36⅞	26½
Preferred.....	.....	.....	.....	82⅛	Apr., 1902, 100¼	93⅛
American Malting	1898	13,750,000	12,540,000			
Common	.....	.....	.....	27¼	Jan., 1901, 33⅝	5½
Preferred.....	.....	.....	.....	77 5/16	Jan., 1900, 84⅜	23½
American Smelting and Refining	1899	27,400,000	27,400,000			
Common	.....	.....	.....	54⅜	Apr., 1901, 69	40½
Preferred.....	.....	.....	.....	91¾	June, 1901, 104⅞	92⅛
American Snuff.....	1901	11,001,700	12,000,000			
Common	.....	.....	.....	26	Oct., 1902, 135	128¼
Preferred.....	.....	.....	.....	78 7/16	Oct., 1902, 101	95¾
American Woolen.....	1900	29,501,100	20,000,000			
Common	.....	.....	.....	21⅞	Jan., 1901, 21⅞	12½
Preferred.....	.....	.....	.....	76½	July, 1901, 82¾	78¾
Continental Tobacco.....	1899	48,844,600	48,846,100			
Common	.....	.....	.....	53¾	June, 1901, 69‡	
Preferred.....	.....	.....	.....	91⅝	June, 1902, 126	116⅛

International Paper	1898	16,040,400	20,530,700				
Common	.....	.....	.....	57½	Jan., 1899,	64⅜	17 7/16
Preferred	.....	.....	.....	90¾	Jan., 1899,	94	71⅛
International Silver	1898	10,000,000	4,250,000				
Common	.....	.....	.....	33⅓#	Mar., 1899,	30	15△
Preferred	.....	.....	.....	37¼#	Aug., 1902,	62½	40 5/16‖
International Steam Pump	1900	15,000,000	8,850,000				
Common	.....	.....	.....	28⅞	Mar., 1902,	57¼	44¼
Preferred	.....	.....	.....	76¾	Oct., 1902,	95	86
National Biscuit	1898	29,000,000	23,000,000				
Common	.....	.....	.....	33 5/16	Jan., 1899,	56	44⅞
Preferred	.....	.....	.....	96 1/16	Apr., 1902,	109½	102⅜
National Salt	1900	7,000,000	5,000,000				
Common	.....	.....	.....	38 7/16	Mar., 1901,	46 1/16	‖
Preferred	.....	.....	.....	66½	Mar., 1901,	80 7/16	
Pressed Steel Car	1899	12,500,000	12,500,000				
Common	.....	.....	.....	56¼	Oct., 1902,	63½	58¼
Preferred	.....	.....	.....	86½	Oct., 1902,	96½	91¼
Republic Iron and Steel	1899	27,352,000	20,852,000				
Common	.....	.....	.....	26 1/16	Sept., 1899,	29 9/16	19
Preferred	.....	.....	.....	76⅝	Sept., 1902,	83⅜	76 3/16
Rubber Goods Manufacturing	1901	16,941,700	6,901,400				
Common	.....	.....	.....	33¼	May, 1901,	38¼	21⅜
Preferred	.....	.....	.....	85	May, 1901,	90	70⅜
Union Bag and Paper	1899	16,000,000	11,000,000				
Common	.....	.....	.....	40	Apr., 1899,△	35½	12 1/16
Preferred	.....	.....	.....	86⅛	Apr., 1899,△	85½	77¼
United States Steel	1901	508,363,800	510,196,400				
Common	.....	.....	.....	44⅝	Apr., 1901,	55	33 7/16
Preferred	.....	.....	.....	94½	Apr., 1901,	101⅞	82½

* The amount of common and preferred stock is for the first year of organization. Since then several trusts, notably Amalgamated Copper and American Smelting and Refining, have increased the amount authorized, while nearly all have changed, usually increasing, the amount issued. † Listed on New York Stock Exchange in November, 1900.

‡ Retired in July, 1901, in exchange for bonds of Consolidated Tobacco Company.

Common stock listed in February, 1899; preferred, in March, 1901. ‖ Insolvent. △ Declined steadily.

which may be estimated at either $395,000,000 or $641,000,000, according as present prices are compared with prices during the first month of listing, or with the highest prices subsequently attained.*

This is the net financial result of the trust movement up to the present time, and it is worthy of the most serious consideration. In a time of great prosperity, when profits and prices have reached unprecedented heights, when the stocks of established railroad and manufacturing companies have generally increased in value, many of them having risen more than 100 per cent in four years, we find that the stocks of the industrial trusts, almost without exception, have steadily declined, the value of the majority being at the present time so low as to exclude them from the category of investments. In short, the trust movement, considered from its financial aspect, is a failure. The profits of the consolidations have not proved sufficient to maintain the value of their securities.

The decline in the value of the trust securities is due to the circumstances under which they were issued, and which made necessary the extravagant representations of

* Objection may be made to this method of figuring the losses on the purchase of trust stocks on the ground that these stocks may have been purchased at lower prices than those selected for comparison, and also because a portion of many of these stocks still remains in the hands of owners and underwriters. The first objection does not appear to have much weight, for the greater part of the sales were made during the early days of the company. The second objection is more forcible. It is no doubt true that underwriters and owners have divided the loss with speculative buyers, but the loss is none the less real because it has been divided. When we add to these figures the losses from the much larger number of smaller industrials which have been floated during the past four years, the larger estimate—i. e., $641,000,000—is without doubt far below the losses actually sustained by the public. In Philadelphia, for example, since the beginning of 1899, industrial stocks and bonds with a par value of $276,000,000 have been floated, most of which have at present a nominal value.

their prospective earning power on the strength of which they were sold. The promoters and underwriters of the trusts and the owners of the individual plants have received a vast sum from the uninstructed and credulous outsider in return for certain pieces of paper whose aggregate value, as the sequel has proved, is less by hundreds of millions of dollars than the prices at which they were sold. This discrepancy between promise and performance, as we have seen in preceding chapters, is due quite as much to the financial management of the trusts as to the exaggerated estimates of their future earnings. In the endeavor to market their securities, profits have been paid out in dividends to the sacrifice of the surplus reserves, which would in time have corrected the mistakes of the flotations. In the absence of large reserves, the value of the stocks turned on the fulfilment of the promises of the promoter, that the increased profits to be secured by the elimination of competition and the economies of combination would be realized. These promises, as the judgment of the stock-market shows, have not been fulfilled.

The extent of the hiatus between promise and performance is strikingly illustrated by the low value of the common stocks in relation to the preferred, at the end of 1902. The average value of the preferred stocks, whose prices are given on pages 338 and 339, was 73.7. The average of the common stocks was 36.7. The value of the common stock, it will be remembered, was to depend upon the increase in the earnings of consolidation over the earnings of competition. The dividends on the preferred stocks were represented by the earnings of the plants in isolation. The common stock was the capitalization of the economies of combination. The difference between the par value of the common stocks in the preceding list, and their present market value, represents the amount by which the trusts

have failed to realize the anticipated "economies of combination."

The explanation for this condition has been already suggested in the discussion of the sale of stocks. These consolidations were experiments. Because they were experiments, the investor, at the outset, would have nothing to do with them. Their stocks must, therefore, be sold to the speculator. The speculative demand, however, though at times large, is fitful and uncertain, likely to disappear at any moment. Great risks are assumed by the underwriters who become responsible for the sale of stocks to speculative buyers. The owners who wish to realize on their holdings are liable to the same contingencies of failure. The underwriters of many trust issues have been obliged to pay for and hold the shares for whose sale they made themselves responsible. In but few flotations have the expected profits of the promoter and underwriter been realized.

The size of the risks involved in speculative flotations is shown by the argument put forward by the attorney for the United States Steel Corporation in the hearing upon the suit of Miriam Berger to enjoin the conversion of $200,000,000 of preferred stock into bonds. The syndicate which guaranteed this flotation agreed to take $100,000,000 of the new bonds and to pay for them with $80,000,000 of preferred stock and $20,000,000 in cash. For this it was to receive a commission of 4 per cent on the bonds issued. The syndicate assumed a double risk. It had to provide $20,000,000 in cash, and, at the time of the hearing, it had already bought $80,000,000 of preferred stock at an average price of 94. Some part of this stock it may have to retain till October, 1903. The syndicate might have to market $100,000,000 of bonds. It had to sell these bonds at 94 in order to come out even. It also assumed the risk of having to market a large amount of

preferred stock. At the date of the hearing, the preferred stock was selling at 88, which represented a loss of $4,800,000 on 800,000 shares purchased. On account of the magnitude of the transaction and the serious risk of loss involved, the commission of $10,000,000 to be paid to the underwriting syndicate does not seem exorbitant.* A similar situation was presented by every large underwriting transaction of this character.

In view of this risk of loss, or of a profit much less than anticipated, the chance of profits must be correspondingly increased. The number of shares of stock which the trust issued, and which were offered for sale to the speculators, must be as large as the traffic would bear; in other words, as large as the anticipated profits of the company would permit. Each share of stock bears the inscription "par $100," and in the mind of the speculative buyer the par value and the real value are identified. When the stocks are offered him at $30 or $40 per share for the common, or at $60 or $70 for the preferred, with the assurance that the expected earnings of the company warrant its capitalization, the speculator is likely to consider the difference between the par value and the asking price as the measure of the bargain presented. In capitalizing their propositions to the full extent that credulity would allow, the syndicate managers were marketing their product in the form most acceptable to the public, and in which the largest quantity of shares would be purchased.

Moreover, to make the assurance of sale doubly sure, this large capitalization must be fortified by the promise of unusually large dividends—7 per cent on the preferred, and all the way up to 15 per cent on the common—and, so far as possible, these promises must be kept. In a preceding chapter, it was shown how necessary were these promises of large earnings to the conviction of the specu-

* See New York Times, June 26, 1902. Argument of Mr. Guthrie.

lative buyer that the trust stocks were worth his purchase, and how general was the practise among promoters and syndicate managers of playing up their propositions for all they were worth in order to make the appeal as strong as possible.

As a necessary result from this situation, we find (1), that the trusts have been capitalized on the basis of very large net earnings; and (2), that the syndicate managers or their representatives have usually made it evident, by their various advertising devices, that the probable earnings of the companies would justify capitalizations far greater than those actually fixed upon.

Let us summarize the two explanations: The trust propositions could not be financed without large provision of cash. This cash must be furnished, in the first instance, by underwriters who expected to recoup themselves from the speculative public. Promoters and owners looked for their profits to the same source of supply. The speculative demand must be appealed to by large promises. Without the assurance of unusual returns, it is apathetic. Given this assurance, however, and under favorable conditions, its power to absorb stock is very great. The original proprietors of the trust stocks could protect themselves against loss, and could, at the same time, make opportunities for the largest profit by large capitalizations and promises of enormous return.

It is true that the fulfilment of these promises, from an outsider's standpoint, has always been unlikely. In order that they might be fulfilled, the world must be suddenly ushered into an era of perpetual prosperity, where the machinery of production and distribution should run without hitch or breakdown, where wars should cease and famine should be no more, where the rain should fall and the sun shine at the right time and at the right place, and where, as a principal requirement, the nature

of man as a competitive animal, whose hand is against every man, should be fundamentally changed. In order to bear out the representations of the trust prospectus, competition must be stilled, labor must be content with its wages, borrowers must be successful in their ventures. In short, industrial conditions must not fall below the high point of prosperity, and that prosperity must increase.

Under these circumstances, and providing these conditions were fulfilled, the trusts could distribute most of their profits to stockholders, pile up large floating debts, convert these into bonds, neglect their depreciation accounts, and at the same time increase their profits to the point where the investor could feel justified in adding their stocks to his holdings. These conditions have not been fulfilled, and the promises of the prospectus have not been kept. The gradual recognition of this fact by the speculators is reflected in the general decline in industrial shares to which attention has been called.

We are not required to enter upon a detailed analysis of individual failures. With the Copper Trust, the main causes were the failure of the foreign demand for copper, the opening of new mines by competitors, and the institution of legal proceedings against the company; with the Asphalt Trust, the defeat of Tammany and the loss of touch with the Venezuelan Government; with the Paper Trust, the Ice Trust, the Rubber Trust, the Salt Trust, the Wall Paper Trust, and certain other financial derelicts, competition was the cause of the fall in their securities. With every trust whose securities have suffered considerable reductions in value, however, the general cause of which the individual explanations which have been mentioned are only reflections, was the misleading representations which induced the speculators to pay more for these trust stocks than they were worth.

The question now arises, Were the promoters and underwriters who have sold these securities at prices which the result has shown were too high, guilty of obtaining money from the speculators under pretenses which they knew to be false? The general opinion of their critics answers in the affirmative. Thus the United States Investor remarks of the flotation of the trust stocks: ". . . A more palpable fraud was never attempted. A lot of men, many of them of previous respectability, get together and conspire to unload hundreds and thousands of industries (most of which have reached the point of diminishing profits) on the public at several times their present, or their potential value; and in order to effect their end they make representations regarding the future earning power of the industries, the ridiculousness of which no one is in a better position than themselves to understand." * The sense of this opinion is that the speculators have been swindled.

The writer does not believe that this opinion, which unfortunately widely prevails, is well founded, and the reason for this belief is the inherent improbability of the explanation. It is difficult to believe that men could be honest and upright throughout a long business career, commanding the respect and confidence of their associates by their sterling integrity and fair dealing, and that these men should suddenly, with premeditation and malice aforethought, conspire to inflict upon their fellow men such considerable pecuniary losses. The majority of bankers and financiers, and a large number of merchants and manufacturers have been concerned in these transactions. The writer, for one, is unwilling to admit that the business men of the United States are such utter rascals as the Investor and other critics equally prominent would have us believe. To admit that prominent bankers have advised the public to buy stocks which they knew to be worth-

* U. S. Investor, May 12, 1900.

less, is to subscribe to the statement that these prominent bankers should be under indictment.

The proposition that the cause of the decline in trust securities is the rascality of those who are responsible for their issue, is absurd on its face. A man may lead a double life in private, but not in public. Dr. Jekyll and Mr. Hyde are conceivable in social relations, but not behind a bank counter. Unless the men who sold these stocks had been honest and sincere, they could not have succeeded in their attempt. The public bought their securities because they had confidence in the integrity of those who offered them for sale. In the vast majority of cases, there is no reason to believe that this confidence was misplaced.

But while fairness compels us, with a few exceptions, to exonerate the trust-makers from the charge of fraud, they stand convicted of a surprising number of mistaken judgments. During the past four years, they have offered to the public a large number of issues of industrial shares, and they have sold these stocks on the assurance of large returns. In few cases have their predictions been borne out by the event. While these men were sincere in their representations, there is no denying the fact that if their business ability is to be judged by the character of the propositions which they have fathered, they must occupy a low rank. If they manage their own business in the way in which they have managed the business of the trusts, both in respect to original capitalization and also in their subsequent conduct of these enterprises, they are in serious danger of bankruptcy. This assumption is equally unwarranted with the first. In their own business, the trust builders are careful, prudent, and conspicuously successful. They are only guilty of hasty and ill-informed judgments when the penalties of their mistakes are paid by others.

What, then, is the explanation of the numerous blun-

ders which have been made in capitalizing the trusts? If they are not due to rascality, nor to imbecility, to what cause may they be referred? The answer to this question is a commonplace of every-day ethics. These blunders of financiers have been due to the distortion of their judgment by self-interest. It is a faithful saying that a man's belief is largely determined by his interest. We do not expect an anthracite operator to give a disinterested opinion as to the social value of the United Mine Workers' organization. A manufacturer whose business would be destroyed by a repeal of the tariff on knit goods is apt to take a one-sided view of the question of reciprocity. To come close to the field of the present inquiry, a man who has a horse for sale is not likely to dwell overmuch on the imperfections of the animal. Indeed, he is apt to forget the existence of these defects. The surprising lapses of memory frequently shown on the witness stand by honorable men offer further illustration of the same principle. In every relation of life, our beliefs follow the lines of our inclinations, and these in turn of our perceived interests. Opposing considerations are not considered. With the best intentions in the world, each one of us builds his little edifice of belief and opinion on the foundation of his own advantage. He sees what he wishes to see, hears what he desires to hear, and believes the things which further his own interests. It is unreasonable to expect him to act otherwise.

To such an individual, comes an opportunity to participate in an underwriting syndicate. By subscribing to an agreement, he is offered an opportunity to make a large sum of money. The merits of these securities our prospective underwriter may investigate. He may review the claims and estimates of the promoter to see if they commend themselves to his judgment. But in making this examination, he unconsciously puts himself in the place of

the speculator to whom these securities are to be sold, and judges the flotation from his standpoint. This is natural. The underwriter does not buy securities to hold, but to sell, and, while examining their merits, he puts himself in the position of the buyer. Under the circumstances, it is too much to expect that the underwriter will take an impartial view of the enterprise with which he is asked to temporarily associate himself. He expects to be interested for a few months only. After that, he will turn his capital in other directions. He falls quite unconsciously into the speculator's frame of mind. To his eyes there is not a cloud in the financial sky. It is to his interest to have clear weather, and he believes that the weather will be clear. He can see no danger to the new corporation from competition, no danger from strikes, no danger from tariff reduction, or from taxation. He honestly believes that the proposition is meritorious, and, in the conviction that the people whom for the present he chooses to call "investors" will take the same view of the matter as he does, he subscribes to 50,000 shares. These shares, it may be, are quickly sold, and the underwriter pockets a handsome profit. He forthwith loses interest in the new enterprise. His money has gone in other directions.

Two or three years later the company begins to pass its dividends. It may go into the hands of a receiver. What now are the feelings of its quondam backer? Is he overwhelmed with chagrin? Does he feel called upon to apologize and perhaps to make restitution to the stockholders? Does he acknowledge responsibility for the deplorable event? Far from it. Instantly, if he remembers his connection with the corporation which has fallen on evil days, there springs into his mind excellent reasons for the catastrophe. No one could have foretold that panic in Germany; that political revolution in New York was utterly unexpected; the discovery of this refining process could

not have been foreseen. These are the immediate causes for the collapse of the stocks. Why should the underwriter acknowledge any responsibility for the original inflation which made these causes operative? Indeed, save in extreme cases, like Asphalt, when the company fails soon after it has been launched, and where the connection of individuals with the culprit is still present in the memory of the security holder, there is little probability that the members of the underwriting syndicate will be censured by those who have suffered loss through their financial operations. And in such cases, notably in the case of Asphalt, some of the promoters and underwriters are harder hit than any one else, and have personal reasons for deploring the calamity, and regretting the error of judgment which led them into a connection with the bankrupt corporation.*

It is no doubt true that a large number of companies are floated which are nothing more than schemes to sell stock, and whose backers know that their representations are false when they make them. Such banditti, however, are not often found among the larger financiers who would repel with just indignation an accusation that they were acting in bad faith with the public. We can, I believe, settle upon this as the final explanation for the sale of trust stocks at excessive values; that the speculative public was anxious to buy shares, that the consolidation of manufacturing plants offered an opportunity to sell them shares at a large profit, and that owners, promoters, underwriters and brokers, with the best intentions in the world, and in the full confidence that the stocks which they offered for sale were good investments—for other people, united to

* The writer personally knows that one of the promoters of the Asphalt Trust was so thoroughly convinced of the value of its bonds that he offered to loan a friend a large sum of money in order to enable him to purchase a block of these securities.

supply the demand of the speculator. No other explanation is required.

We turn now to examine the effect of such flotations upon the public welfare. Is it good or bad for the community that in every decade a large amount of wealth is transferred from the pockets of the speculators—who are, generally speaking, the people—to the pockets of the promoters and financiers of risky enterprises? The trust movement has, as previously shown, been duplicated many times over. At the beginning of every period of prosperity, some untried field engages the attention of the promoter. A large number of companies are promoted and underwritten, whose stocks and bonds are sold to the speculators. In a short time, the expectations formed concerning these enterprises are shown to be exaggerated, their securities decline in value, and the corporations are eventually reorganized down to a basis of realized earning power. After this, their securities pass into the hands of the investor.

Many prosperous railway properties of the United States have passed through such experiences. Northern Pacific, Union Pacific, and Atchison may be mentioned among others. In the newspapers of the years when these companies were floated, we find an exact duplication in railway terminology of the trust prospectuses. The financial methods employed were similar to those used in the promotion and financiering of the trusts. Other industries have passed through similar periods of speculative development. The amount of money which has been "burned up" in unprofitable enterprises, or "raked off" by promoters and financiers, is beyond calculation. The losses of the people from bad investments are too great and too varied for estimate. We have just seen where a loss of several hundred millions has been sustained by the buyer of certain trust stocks, and he is only one of many

contemporaries and a long line of predecessors. This is the condition upon which we may pass judgment.

The question resolves itself into a decision between methods of industrial development. Should the national resources be developed slowly, tentatively, and steadily by the money of the investor, which will be forthcoming only on the assurance of profit from its expenditure; or should the advance be made by leaps and bounds, in a series of financial spasms, on the prospect of unusual returns? The first method is slow, gradual, conservative; the second is rapid, immediate, and reckless. The first is the method of the investor; the second, that of the speculator.

The industrial development of the United States is an illustration of both methods. In the discussion of promotion, it was shown that the active producers were everywhere and constantly extending their operations in order to increase their output. During the last four years, for example, 19,572 miles of railroad have been constructed in the United States. The greater part of this new mileage has been the extension of existing systems as opportunity for larger traffic was presented. This construction was on an investment basis. The traffic was in sight before the money was spent. Manufacturing industry, agriculture, lumbering, and mining have been extended in the same way by existing companies during the same period. On the other hand, a large amount of development has taken place, the money for which has been furnished by the speculators. In addition to the organization of the trusts, there have been oil developments in California and Texas, the copper-mining boom in the West, the Klondike excitement, and a host of minor ventures. The first class of expenditures represented, on the whole, assured success. The success of the second was problematical from the outset, and, as the result has al-

ready shown, its realization has been more limited than its promise.

The experimental method of industrial development, where untried fields are invaded by inexperienced men with other people's money obtained by the promise of abnormal dividends, was the only one possible under the assumed conditions. If the community desires that large risks should be taken in the exploitation of its resources, that each phase of its industrial development should be carried through with a haste and fury which leaves the slow judgment of the investor far behind; if railroads are to be pushed out thousands of miles into deserts; if hundreds of wells are to be drilled on the strength of a few gushers; if every promise of mineral wealth is to be the signal for the expenditure of millions of dollars in the equipment of mines, most of which will prove unprofitable, under these circumstances and granting the desirability of these methods, the periodical waste of the savings of the people in speculative schemes follows as a matter of course. The investor who is able to estimate the value of a proposition will not take such long chances, and the speculator, ignorant and susceptible as he is, will also decline to adventure his money unless he is promised a rate of return which, by its very amount, shows the risk which must be taken to obtain it. In short, the promoters of speculative enterprises can not obtain the necessary funds unless they sell their stocks and bonds on a basis which makes the loss of the buyer in most cases a reasonable certainty. Without the eloquent and persuasive misrepresentations of the speculative promoter, speculative investment would cease, and industrial advances would be made only when the profit was reasonably certain.

This, then, is the root of the matter. The buyer of trust stock has been sacrificed on the altar of a new form of industrial organization. If a permanent advance has

been made, and there are few who dispute this, then, it may be claimed, the ultimate gain to society may overweigh the immediate loss. The trusts could not have been financed within such a short time and in such large numbers without the sale of their securities to the speculators, and this sale could not have been made without the honest misrepresentations which have resulted in such heavy losses to purchasers. If the movement had proceeded slowly by the union of a few competitors, who were then gradually joined by others, until the actual savings of consolidation were made the basis for a financial proposition, in such an event, the investor could have been appealed to for the funds necessary for further extensions. At the present time, when the investor has a fund of information to go upon, he can buy the securities of new consolidations with some knowledge of their actual value. But in the United States, such movements are not, as a rule, conducted in this manner. They are carried through with a rush and on a grand scale; and a reorganization of the principal manufacturing industries of the country within four years could not have been accomplished without heavy losses to the speculators who furnished the funds.

The comparison of the method of speculation with the method of investment is evidently in favor of the latter. It has been argued that it was beneficial to the country to have these experiments tried at the expense of the venturesome,* but the facts point so plainly in the opposite direction that it is unnecessary to long delay our conclusion in order to examine these arguments. In exceptional cases, it may very well have happened that industrial development has been furthered by the methods of specula-

* In the Report of the Industrial Commission on Trusts and Industrial Combinations, vol. i, pp. 1149, 1150, Mr. John R. Dos Passos presents this point of view in defending the capitalization of the Pacific railroads.

tive promotion, and by the waste of the speculators' money. Generally speaking, however, the cautious methods which the investor demands will arrive at the goal much sooner, and with less waste of effort and money. The coke-oven experiment at Boston, for example, could have been tried on a small scale before launching out on a large financial operation which was foredoomed to failure. In this case, moreover, it is certain that the ill success of the New England Gas and Coke Company has seriously discredited a desirable innovation in an important industry. The methods of the investor are, as a rule, preferable to the schemes which are produced by the speculative promoter.

CHAPTER XIX

THE INVESTMENT POSSIBILITIES OF A REFORM IN CORPORATION LAW

Up to this point, the evils resulting from speculative promotion have been passed by without more than incidental remark. Many of these harmful results are familiar from the discussions of two centuries past. As far back as the days of the Louisiana bubble, writers have pointed out that the sale of worthless securities inflicts heavy losses upon the community by diverting the substance of the many into the pockets of the few. In recent years, the prominent contribution of inflated securities to financial panics has been fully discussed, and is generally understood. The attention of the public has also been called to the danger to certain forms of private property, which results from the deep-seated public hostility toward large corporations, a hostility largely due to the losses of the speculator as well as to those of the consumer and shipper. These evils of speculative promotion do not call for special remark. There is, however, one interest whose concern with this question of speculative promotion is not so generally understood, but which is, notwithstanding, profoundly affected by the decennial inundations of inflation which sweep over the United States. The class most seriously injured by the results of speculative promotion is the class of investors.

Throughout the preceding pages, we have had frequent occasion to observe that investment securities command a high price and yield a small return to the buyer. The ordinary yield of an investment stock or bond is 4 per cent. When the yield is 5 per cent, the limit of safety has been reached. It is a well-known fact that the return to invested capital is constantly declining. The consensus of financial opinion seems to be that within the next fifty years 3½ per cent will be the highest return which can be expected from safe investments. This low rate of return is a hardship. It keeps men at work long after they have reached the time for retirement. It maintains the rates of insurance companies on a higher level than if the investments of these institutions paid 5 or 6 per cent instead of 3½ and 4 per cent. The interest of savings-banks is lower for the same reason. Every class of savers in the community is affected directly or indirectly by the decline in the rate of return on invested capital.

This phenomenon of a decreasing investment return is the more surprising when we consider that the actual earnings of a sum of money expended in some form of production were never so great as now. While the investment rate of interest has steadily fallen, the productivity of the funds contributed by the investor has advanced. For the last four years, for example, to the personal knowledge of the writer, the annual earnings of certain well-equipped steel plants have approximated 100 per cent on their cost. Railway earnings have also been prodigious on new capital contributions. The majority of well-managed manufacturing establishments and mining plants have made more money than they care to confess. These large profits are not universal, but they are numerous. Their amount may be reduced by the losses of bad years, but in the long run and on the average, the profits of successful enterprises—the enterprises, in other words, into which the in-

vestor would naturally put his money—are far greater than the return on good securities. There is no reason to doubt that these profits will continue to increase. The rapid growth of population and wealth is every year broadening the demand which the improvements in production are scarcely able to supply. Industrial depressions may cause the profit curve to fluctuate, but its general tendency is upward.

A startling contrast is here presented. Why is it that a manufacturer can take a million dollars into some industry and average $100,000 or $200,000 per year, while, should he retire from business, and invest his wealth in approved securities, he would be unusually fortunate to receive $45,000 in interest or dividends? Why is it, in other words, that the profits of industry are so large, in relation to the expenditure, where they pass directly into the hands of the manufacturer, and so small, in relation to the money invested, when they assume the form of interest and dividends?

The answer to this question lies on the surface of the preceding discussion. It is found in the fact that, as a result of the activity of the speculative promoter, the profits of industry are capitalized into forms in which the investor can not purchase an interest in them. The investment demand is, therefore, concentrated upon the securities of established corporations which may have passed through the process of reorganization into positions of safety. The consequence of this concentration of a rapidly growing investment demand upon a limited supply of investments is to raise the prices of good securities, and in this way to diminish their yield. This increased price is due to an increase in the demand for good investments at a more rapid rate than the supply of such securities. Safe investments, it is true, are constantly increasing. Long-established companies are every year making new

issues of stocks and bonds whose dividends and interest are reasonably assured. Standard railway companies have provided numerous opportunities for investment. During 1901, the listing of stocks and bonds by railway companies on the New York Stock Exchange, including conversions, was $951,000,000. Most of these issues were entitled to rank as investments. But, notwithstanding this rapid increase in the supply of investments, the demand for investments, as proved by advances in the prices of standard stocks and bonds whose dividends and interest remain unchanged, has increased even more rapidly.

This fact of the diminishing return on investment is shown by the table on page 360, which gives for 1876, 1886, 1896, and 1901 the yield to the investor on the purchase of certain standard railway stocks.

The extent of the decline in the rate of return on investments appears from this table. In 1872, the average yield of the five stocks examined was 7.9 per cent, in 1882, 5.6 per cent, in 1892, 4.8 per cent, and in 1901, 3.3 per cent. The conclusion is plain that the demand for investments has far outrun the supply. The investor has evidently been willing to pay an increasing price for securities whose yield is safe, stable, and permanent. In short, considered in relation to their demand, investments are growing scarcer every year. In spite of the rapid growth of national wealth, and the wide-spread increase in the profits of industry, the share of those profits which the investor receives for each $1,000 which he turns into corporation securities is less than one-half what it was thirty years ago.

The explanation of the decline in the rate of return on investments lies in the methods of company promotion which are sanctioned by law and custom in the United States. These methods, as we have seen, result inevitably in the sale of securities of new companies at specu-

Yield of Railroad Stocks

Railroads.	1872.			1882.			1892.			1901.		
	Price.	Dividend	Yield.	Price.	Dividend	Yield.	Price.	Dividend	Yield.	Price.	Dividend	Yield.
Chicago, Burlington and Quincy.....	135⅝	10	7.3	130¾	8	6.1	102 13/16	5	4.8	169	5	2.9
Chicago, Milwaukee and St. Paul, pref.	77⅝	7	9.0	129⅜	7	5.4	124 3/16	7	5.6	187½	7	3.7
Chicago and Northwestern, preferred..	92 15/16	7	7.5	155½	7⅜	4.9	142⅝	7	4.9	225⅞	7	3.0
Chicago, Rock Island and Pacific.....	109 7/16	8	7.3	131⅛	7	5.3	84⅞	4	4.7	145 1/16	5	3.4
Illinois Central.....	128½	10	7.7	139⅛	7	5.0	104¾	5	4.7	139⅜	6	4.4
Lake Shore and Michigan Southern...	90⅞	8	8.8	108⅜	8	7.3	130¼	6½	4.9	292½	7	2.3
Michigan Central.....	116¼	10	8.6	91	..	...	109½	5½	5.0	143⅝	4	2.7
New York Central and Hudson River.	95 7/16	8	8.3	130 1/16	8	6.1	113 3/16	5¼	4.6	151 1/16	5	3.2
Pittsburg, Fort Wayne and Chicago ..	95⅛	7	7.3	134½	7	5.2	153½	7	4.5	191¾	9	4.6
			7.9			5.6			4.8			3.3

lative valuations, and in a policy of financial management which cooperates with the original errors of the promoter, to depress most of these securities to a value which is little more than nominal. The investor values the safety of his principal above the yield on his purchase. He can not, therefore, buy these speculative securities, because they offer no certainty of continued dividends.

As a result, we have the extraordinary condition now prevailing, where, in the face of capital creations running into the billions, far exceeding the amount of money offering for investment, the demand for safe investments, as shown by their rising prices, is constantly outrunning the supply. The enormous number of new securities which have come into the market have had apparently little effect on the supply of investments. The promoters and syndicate managers find it more profitable to capitalize their new companies for sale to the speculators, and to manage them with an eye to the speculative demand. The consequence is that our stock lists are full of industrials which the investor will not purchase even at the ridiculous prices at which they are offered, because he knows from the history of such enterprises in the past that their financial condition will be worse before it is better.

In short, the cause of the low rate of return on investments is the capitalization and management of new enterprises, in whose profits the investor would otherwise share, with exclusive regard to the speculators. The speculative buyer will pay a higher price for a property than the investor, and will pay that price in a shorter time, and the manufacturers of securities naturally appeal to their best customers. If these new enterprises, such, for example, as the trusts, had been capitalized on an investment basis, in other words, at about one-third their present figures, and if they had been so managed as to appeal to the invest-

ment demand, the supply of good securities would by this time have been so considerably increased as to warrant the opinion that the price of safe investments would have been much lower, and their yield, in consequence, much higher than they are to-day.

Let us look at the matter from another standpoint. As closely as can be determined from their meager reports, the profits of the principal trusts whose stock prices were given in the preceding chapter, during 1901, were $155,000,000. The capitalization of these companies was about $2,000,000,000. The shares of only two out of the twenty-one—Continental Tobacco and American Snuff *—basing a judgment of their quality upon their yield to the purchaser, can be considered as investments. With these exceptions, the creation of this mass of securities has not increased the supply of investments. The investor is excluded from participation in these profits. Now let us suppose that these companies had been conservatively capitalized on the basis of one fourth their net earnings for this year. With most of these companies such a capitalization would not be extravagant. Suppose also that they had devoted one-half their profits to surplus reserve in order to prepare for a possible depression. On a 5-per-cent yield for this class of investments, their combined capitalization would now be $775,000,000. If these companies had been capitalized and managed in this manner, most of their stocks would have been acceptable to the investor, who would by this time have absorbed them, since, out of their large earnings, they would have accumulated adequate reserves, and their dividends would be reasonably secure. As a result of the investment demand for industrials, the request for railroad shares would not have been so great; the price of all investment stocks, and, indirectly, the price of bonds would have been lower than

* To these may perhaps be added National Biscuit, preferred.

at present, and the yield to the investor would have been higher.

It may be objected that the speculative demand which has expended itself on industrials would, in such an event as has been supposed, have turned to investment securities, and that the increased supply of good stocks would have been equaled by an increase in demand. This objection, however, is not well taken. In the discussion of stock selling, it was shown that the average speculator is not appealed to by a return of 5 or 6 per cent on his money. He expects a much higher return, and he would probably not be in the investment market in any event. It is true that there are many investors who have so far forgotten themselves as to turn speculators, and to buy, under the conditions which have been supposed, the stocks of the trusts. These persons would probably increase the investment demand if speculative securities were not to be had. In relation to the increase in the supply of good securities, however, this increase in demand from those investors who might return from running after strange gods would probably be small.

Furthermore, the amount of money which has been spent in actual purchase of industrials is, in the opinion of well-informed brokers, much less than the amount invested on margin. If the industrial stocks were placed on an investment level, the money of the speculators would not be turned into the investment market. It would go into grain, or cotton, or coffee speculation, or into real estate. It would find a lodgment in the pockets of the bookmakers, or would go over the roulette table. Some of these gambling devices are more respectable than others, but they are alike in affording an outlet for the instinct to get something for nothing which is so characteristic of the dolichocephalic blond.

Certain objections to the foregoing statements will at

once be suggested to the minds of those conversant with investment matters. Under the present system, it has been suggested, many large investors place a portion of their funds in speculative securities during a period of prosperity. They rely upon their close touch with financial affairs to warn them of impending disaster, and they are attracted to trust stocks, like other speculators, by the high rate of return. It is well known that large amounts of industrial preferred stocks are held by investors on speculation. To this extent, the existence of these speculative securities relieves the investment market, and raises the yield on good securities by lowering their price.

This objection, however, is only superficially valid. It is no doubt true that many investors do hold at times large amounts of speculative securities for the sake of the high return which they yield, and to this extent, they relieve the investment market of its demand. This relief, however, is only temporary. When depression overtakes these new corporations, these *soi-disant* speculators quickly throw their holdings overboard. They know much better than the average speculator the risk of holding on. Their demand is quickly shifted to the investment market. As a result, we have the well-known phenomenon of a rise in the price of gilt-edged securities after a financial panic. The attractions which speculative securities offer to the man of large wealth, as a purchase, are only temporary. They are attended with large risks, and they are abandoned at the first sign of danger, which fact, of itself, increases the instability of their values.

A second objection to the view suggested is more fundamental. The trusts could not have been floated on the scale on which they have been floated within the past four years without an appeal to the speculator. The necessary capital was altogether too large for the investor to furnish on such short notice. Only the speculators would buy

these stocks. If, therefore, the objector may urge, the trusts could not have been financed in a conservative manner, how would the enforcement of conservative methods during the past four years have increased the supply of good securities? The result of a prohibition of speculative promotion, it may be held, would be to stop promotion of any kind. At present, the capital of speculative corporations can be reorganized into respectability. Their securities eventually pass into the hands of the investor. But under the plan suggested, which contemplates the abolition of speculative promotion, even this source of security supply would be cut off. The investor's demand would be even more narrowly concentrated than it is at present, and the yield on investments, as a result, would not rise, but would fall.

This objection only meets the argument that speculative promotion is bad for the investor. Even if the objection should be conceded, there would remain the important benefits of industrial security and financial stability to result from the elimination of speculative promotion, and these would far outweigh the suggested decline in the rate of investment return. But the objection need not be conceded. It is not well taken, and it can be answered by an appeal to the facts. It is not true that promoters' activity is always or necessarily of a speculative character. A large number of the enterprises which have been successfully managed from the start, have contained some element of promotion.* Every individual who secures control of an industrial opportunity or resource in order to sell it at a price above the face of his option, is a promoter. No matter whether he sells the resource for

* The reader who desires to gain some idea of the number of companies which are organized on an investment basis is referred to the Construction Department, published each week in the Manufacturers' Record, of Baltimore.

cash or for stock, or whether he remains in the company or withdraws from it, the identity of the promoter is maintained. No law could destroy the promoter who is a useful member of the productive community.

But, granting the permanence of the promoter's function, and the desire of the investor to share in the profits of safe enterprises, the conclusion follows that the enforcement of conservative methods upon the promoters of the trusts would not have prevented consolidation, but would only have restricted consolidation to those industries in which its necessity, and the increased profit which it promised, were plainly apparent. If the consolidation of competing plants is profitable to their owners, and this will hardly be denied, then the promotion and capitalization of consolidation on a conservative basis is entirely practicable. The Union Steel Company, the Cramp Shipbuilding Company, and the International Harvester Company are recent examples of conservative promotion where the value of the economies of combination was apparent, the majority of the stockholders were content to retain their interest, the capitalization was moderate, and the underwriters' commissions were not large. Every successful trust, it is not too much to say, could, in time, have been floated in a similar manner.

It is true that the progress of the consolidation movement under these restrictions would have been much slower than the development which has actually taken place since 1898. The necessity for coming together must be evident to the owners before they would consent to sell their plants at actual, instead of inflated values. Many important plants would have been forced into the trust by its superior advantages for competition. But with all these concessions and reservations, the fact remains that no matter how closely the operations of the trust promoter might have been circumscribed by the law, he would have

still been active, and the results of his labors would have been a large addition to the supply of investment securities. The restriction of competition, and the exploitation of a vein of ore, a seam of coal, or a tract of timber-land, are all alike opportunities for the production of wealth. The natural resources of the United States are being steadily developed in a conservative way by the money of the investor. The economies of combination, considerable and valuable as they are known to be, could have been realized in the same manner.

We may conclude, as the result of this part of our final inquiry, that conservative capitalization and conservative management of the new companies would, in all probability, have already lowered the price of investment securities by increasing the supply in relation to the demand, and would have enabled the investor, as a result of these lower prices, to put his money out at higher rates than he receives at present.

Granting the possibility of enforcing conservative methods upon the promoters of new enterprises, the results of such a reform would be far-reaching. In addition to the higher return to private investment, into which most of the industrial shares would probably go, the financial institutions—insurance companies, savings-banks, building and loan associations and commercial banks—would profit from the withdrawal of private investors from the approved security market, and from the lower prices at which they could obtain their investments. In some cases, also, the best industrials might be found among the investments of such institutions, just as the stocks of certain railroads have been recently added to official lists of "approved securities." The result would be an increase in their earnings—a portion of which, competition would in time force them to pass on to the public in lower insurance premiums, higher interest to the depositor, and lower in-

terest to the borrower. The entire community would eventually experience the benefits of a rise in the rate of return on invested funds.

With the menace of doubtful securities removed, the frequency and severity of financial panics would be much reduced. The history of crises shows that, with hardly an exception, they originated in the stock-market, and that their initiation came from the collapse of some speculative security, which, in its turn, carried down a mass of other collaterals, and compelled the banks to pinch the mercantile borrower in order to save their speculative clientele from destruction. Furthermore, after the crisis is past, and the period of liquidation sets in, the reorganization of bankrupt corporations, and the uncertainty of the values of all but the best securities interfere with the recovery of prices. It is too much to say that the elimination of speculative securities from the stock exchanges of the United States would prevent industrial depression. Other influences—wars, panics in foreign countries, crop failures and speculation in other lines—would continue to periodically depress all values. With values of securities settled upon an investment level, however, it is certain that the severity of these periods of depression would be much relieved.

A third advantage which would result from the restriction of speculative promotion is a change in the attitude of the public toward large corporations. At the present time, this attitude, as before remarked, is decidedly hostile. There is little doubt that if hard times should again come upon the nation, the trusts would be vigorously attacked by the legislatures. The form of this assault is immaterial. It may come as a reduction of the tariff, as increased taxation, or by way of forcible dissolution. Whatever its form, however, the effect can not but be disastrous to trust securities. This prejudice against

the trusts is due in no small measure to the losses which their stockholders have already sustained by the decline in the prices of their shares. In the event of a panic, such as that of 1873 or 1893, there can be little doubt that the value of most of these stocks would be destroyed. In such an event, it is by no means unlikely that those who had suffered loss at the hands of the trusts would be foremost in denouncing them. In the existing confusion as to what are "good" and "bad" corporations, we may be reasonably certain that such an assault would extend far beyond the objects against which it was originally aimed, and would result in radical legislation which would probably be injurious to investments.

We now turn, in conclusion, to the means by which this reform can be accomplished. The reform which the argument of this book has shown to be necessary, without which, indeed, all measures of financial control and regulation will prove ineffective to remedy the evils complained of, is the elimination of speculative promotion. The necessity for this reform is by this time apparent. The evil complained of is the superabundance of speculative securities. These result from the flotation of companies on a speculative basis. In order to destroy the speculative stocks and bonds which infest our exchanges, the practises which placed them upon the market must be made impossible by the enactment of legislation which will enforce a policy of capitalization and management whose effect will be to destroy the attractiveness of new securities to the speculator, and place them eventually upon an investment basis.

CHAPTER XX

A SUGGESTION FOR NATIONAL LEGISLATION ON CORPORATION FINANCE

The first essential to such a reform in our corporation law is national control of all corporations. As long as the States are permitted to bid against each other for corporation fees by the offer of large privileges to incorporators, no measure of restriction can be expected. The stringent regulations of one State can be set aside by the more liberal laws of another. It is not altogether clear that Congress possesses under the Constitutional right to regulate interstate commerce, the implied power to charter all corporations which conduct an interstate business. A constitutional amendment is generally considered to be an essential preliminary to national control of corporations, and this, it must be admitted, would be difficult, although not impossible, to secure. Without, however, entering into a discussion of ways and means, it is important to observe that the States, in surrendering their powers of incorporation to the National Government, supposing this can be brought about, would not give up any rights which they now possess. On account of the large powers which the law gives to a foreign corporation, the States have not been able to enforce their provisions of regulation against those of their citizens who wished to do business within their borders under the privileges of a charter granted by some other State.

It is not required, as some corporation officials seem to fear, that the full measure of publicity which is necessary to acquaint the investor with the facts about a property, should surrender the secrets of the business to competitors. A Philadelphia accountant, in conversation with the writer, recently illustrated the possibility of harmonizing publicity with necessary secrecy. This gentleman was engaged to make a report on a newspaper property which was about to be sold by order of the court. The report was especially full and detailed, but not sufficiently explicit to suit certain persons, who requested information as to the returns from advertising and the amount paid for salaries. The Master in Chancery refused to allow this information to be given on the ground that competitors would discover the secrets of the business. The accountant pointed out to the writer, however, that by presenting merely the totals, without mentioning individual items, this danger could be avoided, and at the same time the investor could be fully informed. The competitors of this paper could not have profited from information as to the aggregate salaries paid or the total amount of advertising receipts. What they were concerned to discover, was the amount paid to certain individuals on the staff, and the terms of particular advertising contracts. This information would be of no service to the investor.

It is impossible, in most manufacturing enterprises, to conceal from competitors the cost of operation. This can be told from the known facts of the industry. The special arrangements with individual buyers and sellers, however, can be kept back from the public, while at the same time, abundant information as to the financial condition of the company can be given. It would be difficult to discover from the admirable reports of certain leading railway corporations, the existence of the system of rebate agreements which has been recently brought out in court. As for the

other elements of the scheme of public regulation and control, which have been suggested, their utility is conceded, and they need no longer detain us.

If we had no supervision of banks, and it was proposed to adopt such a system of supervision, examination, and control of the affairs of banks as is now provided for by the National Banking Law, and worked out through the Comptroller's office, it is probable that the average bank officer would say that such a course would be absolutely ruinous, and that no bank could possibly submit its affairs to such scrutiny by public officials. But, as a matter of fact, we find that the publicity enforced by the National Banking Act, and the provisions as to paid-up capital, reserve, surplus and loans which the law enjoins, and the Comptroller enforces, are most salutary, and do not interfere with the proper conduct of a bank's business. If the affairs of industrial corporations were subject to a similar scrutiny, if we had perhaps a Federal Comptroller of Corporations, with the same power over corporations that the Comptroller of the Currency has over National Banks, the result would be most beneficial.

Up to this point, our scheme of corporation reform has placed a certain class of corporations under Federal control, and has provided for full publicity in their accounts. But is this sufficient? Will publicity prevent the evils which such a law should remedy? On the basis of the discussion which has preceded, publicity alone would be insufficient. New companies of the character of the trusts look to the future for their results. They do not base their promises of dividends upon the earnings of their constituent concerns. Their prospectuses expressly state, in many cases, that these former earnings were only sufficient for dividends on the preferred stocks. It is in the profits of consolidation that they find the basis of their proposition. A firm of New York promoters, who make a specialty of

mining propositions, the most risky to the general speculator, and where the desirable certainties are usually picked up by insiders without public subscription, make a great point of publicity in all their transactions, even going so far as to send monthly statements of the operations of each one of the properties, giving the fullest information concerning receipts, disbursements and prospects, to each one of their stockholders. It is evident, however, that the speculator who buys their stocks can not see any further into the earth because of these elaborate tabulations and reports. No amount of publicity can make the future clear to the present.

Moreover, the class of individuals who buy these speculative securities would not be greatly influenced by an accountant's report, no matter how detailed and explicit it might be. On this point, a quotation from the Commercial and Financial Chronicle of March 10, 1900, is pertinent: "Occasionally, as was the case last spring, the public will fairly go crazy, and literally insist on putting its money into enterprises of which it knows nothing, and of which it makes no effort to learn anything. No restrictive legislation can help in such a case as this. The phenomenon . . . is psychological rather than financial, and the mischief may easily be done in stocks of companies which make no concealment of their earnings. The heaviest of all the losses in last year's carnival of speculation . . . were not in the industrial stocks, but in one or two street railways which published periodically income accounts and balance-sheets. We do not doubt the wisdom of requiring reasonably full and frequent statements of their condition by the trusts; but all the legislation on earth could not provide the brains to enable investors to understand and properly reason from such statements. We should like to know what proportion of the shareholders in an industrial company making annual statements are really wiser than

they were before, after examining the complicated entries of allowance for depreciation of plant, for bad accounts, and for actual value of real estate and machinery."

The advocates of the "publicity cure" for the evils resulting from speculative promotion could not be better answered than the Chronicle has answered them. Those who bought the stocks of the trusts would not have been deterred by an examination of any number of balance-sheets. They were investing in futurity. No amount of publicity could have deterred them.* Reform in our corporation law must go much further than the enforcement of publicity, if low-priced stocks are to be banished from the exchanges. It is true that publicity is a necessary element of a scheme of corporation reform. Without full information, the provisions of the law can not be enforced. But it should be borne in mind that publicity is only a means to the end of regulation.

In suggesting what seems to be an essential feature of a scheme of regulation which will destroy or at any rate diminish speculative promotion, it is believed that the reader has already arrived at the correct answer to the question propounded. The discussion of the preceding chapters has shown that, in order to market the stock of a speculative proposition, the syndicate managers must promise immediate and large dividends, and that, as far as possible, these promises must be kept if the stock is to be sold within the time of the underwriter's agreement. It has also been shown that this immediate disbursement of

* It should also be noted that the margin speculator delights in uncertainty. The more mysterious the operations of a company are, the greater speculative favorite it is likely to be. It would be an actual unkindness to the margin speculators to enforce complete publicity on speculative corporations. The "investor," whose interest the statesman is so anxious to protect, is usually a 5- or 10-per-cent margin speculator, who regards interference with his gambling utensils as pool-room betters would regard an interdict on horse-racing.

profits is opposed to the permanent welfare of the company, which demands that the capitalization should be fortified by a large reserve out of earnings. The amount of the capitalization is of no consequence if only the reserve be accumulated.

The situation, then, is as follows: The profits of the promoters and underwriters of a new company can only be realized by the promise of large dividends followed by a free disbursement of profits to stockholders. If this is done, the shares can, as a rule, and unless the company is reorganized, never attain an investment position. The solution of the problem of eliminating speculative promotion lies, therefore, in the enforcement of a conservative disposition of profits. If these are paid out to shareholders, the stock will continue for an indefinite period on a speculative basis. If they are turned into surplus, the shares are straightway put on the road to an investment position. The regulation which would attain the desired end of increasing the number of investment securities is, therefore, a requirement that until a certain percentage of reserve has been accumulated, no more than a certain proportion of profits, say one-third or one-fourth, shall be paid to stockholders. Only when the rate of dividend is fully protected by an adequate reserve of ascertained earning power, should the corporation be given a free hand in the disposition of its earnings.

It will be observed that no restriction of capitalization is suggested. It is a matter of no consequence into how many shares the ownership of a company may be divided, providing the reserve bears the necessary proportion to capital. Given an adequate reserve, and the value of any number of shares may be made secure. The necessity of collecting this reserve before dividends could be paid, would probably operate to make original capitalizations sufficiently conservative. What the proportion of reserve

should be, is immaterial if only it be large enough. Fifty per cent is probably none too small for manufacturing companies, and 25 per cent for railway corporations.

It will be further observed that nothing has been suggested as to the regulation of the depreciation account or the floating debt. These can be safely left to the judgment of the representatives of the investor, who would, as a result of the reserve requirement, in a few years, come into control of the company. Furthermore, during the period of underwriter's control, the good opinion of the investor would be sedulously cultivated. With the necessity of appealing to the speculative demand removed, there is no reason to question the ability of the financial management of American corporations.

The question of cumulative preferred stock could also be safely left to the judgment of the directors. If these were elected by investors, such stock would be issued, if at all, probably with provision for early retirement. All such matters would take care of themselves, if only the investor is placed in control. Let the law see to it that the dividends of new companies are made secure, and the investor can be trusted to safeguard his interests by providing for competent management.

The result of such a regulation would be to seriously interfere with the activity of the speculative promoter. The speculator would not be attracted by a proposition to wait perhaps for years for a large return on his money. He would have little to do with stocks which were condemned by too much security. Under such a system of corporation regulation, when a promoter has assembled a proposition, he must, as a rule, organize it on a basis which would appeal to the investor, since otherwise he could not get it underwritten by the banker. The underwriter, moreover, since he might be obliged to carry for years the securities whose sale he guaranteed, would see to it that

the proposition was one which commended itself to his judgment.

The promoter, under such a reserve requirement, must get down to the bed-rock of reality. He could no longer profitably indulge his fancy in painting gorgeous word pictures of what is "reasonably certain," or "likely to be realized," or "assured in the opinion of experts." The gains of promoters and underwriters would, under such a system of regulation, be moderate, in keeping with the moderate risks assumed. It is not unreasonable, moreover, to believe that the ultimate result of a system of corporation regulation, such as has been outlined, with an adequate reserve requirement as its central feature, would be an advance in the yield on good securities as a consequence of an increased supply of investments, and a larger measure of stability and security in general business conditions.

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